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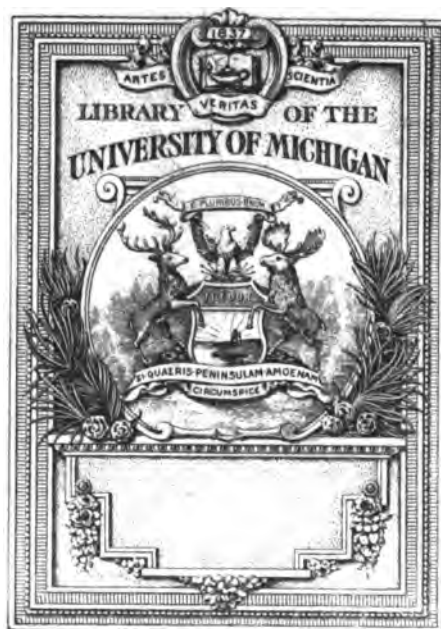


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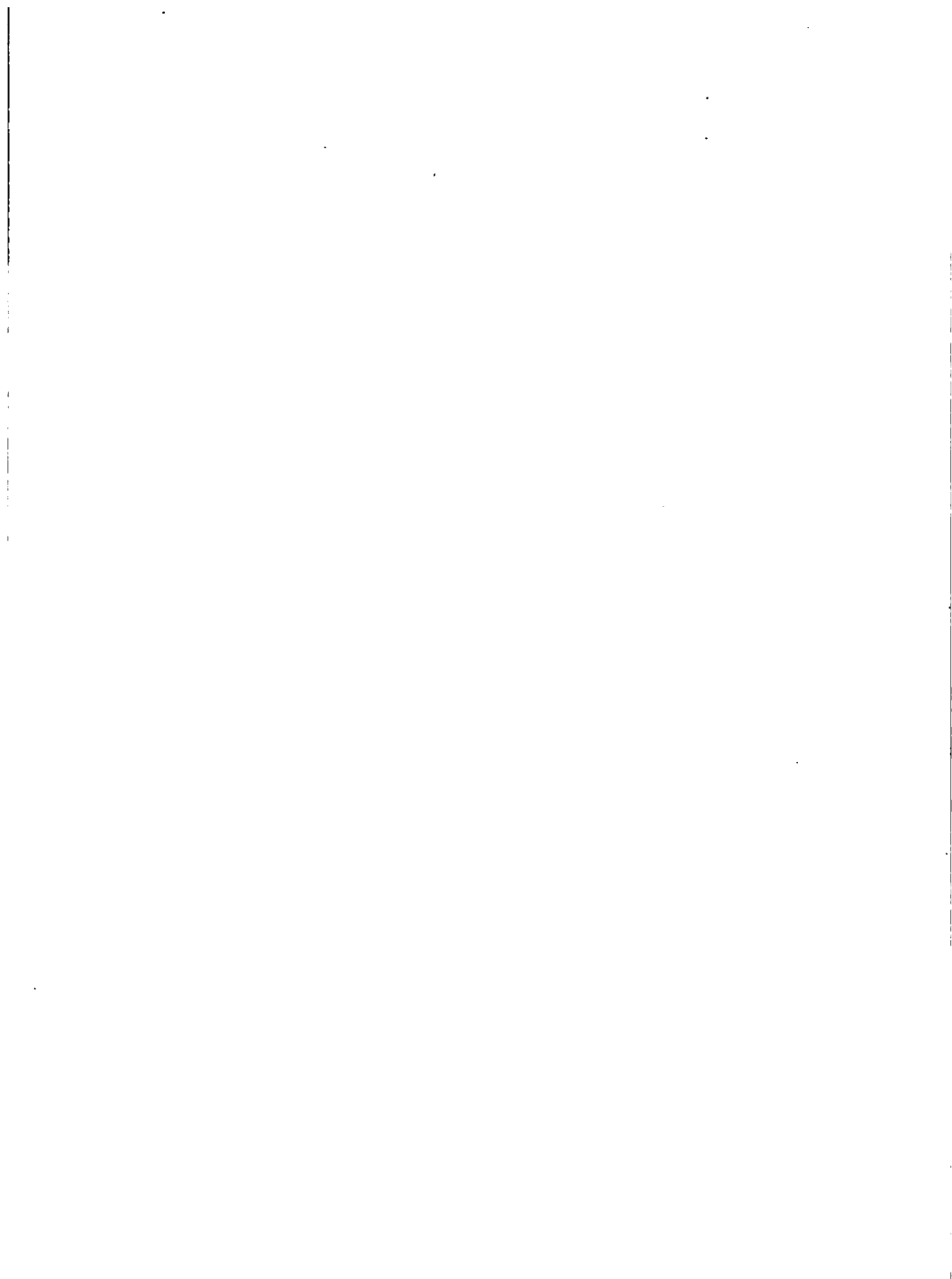


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VOL. XLVII.—JULY, 1883.—NO. I.

Original Lectures.

ARTICLE I.

OPENING ADDRESS. By JOHN M. ATLEE, M.D., LL D., President of the American Medical Association, at its stated session, Cleveland, June 5th.

Gentlemen of the American Medical Association: Permit me to express my feelings of gratitude for the unexpected honor conferred upon me at the last meeting of the association, and to cherish the hope that in fulfilling the duties of this responsible position, I may be sustained by your cordial co-operation. We meet here to engage earnestly in furthering the interests and objects of the medical profession. We have come together from all parts of our broad country, charged with these great responsibilities. It is fitting to express here deep regret at the absence from our councils of delegates from the Medical Society of New York. Let us hope that this absence may be only temporary, and that at the next meeting every state may be represented. As specialties are so much in favor at the present time, I have

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thought it well, though far from favoring them on ordinary occasions, to bring prominently forward, in my address to-day, my own rare specialty, namely, the having been a graduate of sixty-three years' standing. Instead, therefore, of calling your attention to the more strictly scientific subjects that are so generally considered upon such an occasion as this, it has occurred to me that some reminiscences of my early medical life might not be wholly unacceptable, or devoid of interest and instruction.

When I began my medical studies, in 1815, there were but few medical colleges in the country—the medical department of the University of Pennsylvania, the College of Physicians and Surgeons of New York, and the colleges at Baltimore, Harvard, New Haven, and Lexington, Ky. The University of Pennsylvania was the leading institution, to which students from all parts of the country came. The facilities for clinical instruction at the University were confined to the Pennsylvania Hospital and the Philadelphia Almshouse; but of these lectures and the distinguished clinical teachers I shall speak again. Having had no opportunities for studying practical anatomy before matriculation at the University of Pennsylvania, I devoted myself more particularly to that branch in my first course of lectures, 1817–18. The chair was then filled by Dr. Caspar Wistar, one of the most able and accomplished teachers of anatomy which this country has produced. His amiable deportment and kind treatment of students made an impression upon me which I shall never forget, and after the lapse of more than sixty-five years the thought of him kindles in my breast emotions of genuine pleasure. As I remember him, he was of medium stature, apparently about sixty years of age, and so impressive was his teaching of anatomy up to the time of his death, which occurred very suddenly, in January, 1818, that his words remain with me yet. He was certainly a man of great personal magnetism, extremely courteous in his manners, and gentle in disposition; he was always ready to converse with the students and help them in their difficulties. It is no wonder that he was greatly beloved by the students. The announcement of his sudden death from disease of the heart, on the night after he delivered his last lecture, produced a shock among the students that I shall never forget.

Just here I may appropriately allude to the foundation of a social institution, long known in Philadelphia as "the Wistar Parties." Dr. Wistar had been in the habit of inviting to his house, on Saturday evening, men of learning and distinction, both citizens and strangers. The ability and social qualities of the professors of the University of Pennsylvania and of the eminent medical men of Philadelphia, caused always the presence of a large infusion of medical science in the composition of his parties. After his death, these gatherings were revived and continued by his friends, and they were still known as "Wistar Parties" in honor of their founder. In this way originated the celebrated social gatherings which occupied so important a share in the social annals of Philadelphia. I remember my gratification when young at meeting some distinguished gentleman from abroad, and many no less distinguished from our own country.

The course of lectures on anatomy, interrupted by the death of Dr. Wistar, was subsequently finished by Dr. John Syng Dorsey, a favorite nephew of Dr. Physick. He completed the course with credit, and was subsequently elected to fill that chair. Unfortunately, he also died after a very short illness, after delivering his introductory lecture, within a week after the beginning of the term. It was a great loss to the University, and a very severe blow to Dr. Physick, one from which he never recovered. At this period there was no American work on anatomy; but about this time Dr. Wistar's Anatomy was published, and adopted as a text-book. It was received with great favor, even with enthusiasm by the students. The assistants to the professor of anatomy at this period were Drs. William E. Horner and Hugh L. Hodge, afterwards highly distinguished in their respective branches, anatomy and midwifery.

Dr. John Redmond Coxe was the professor of chemistry in the winter of 1817-18, a grandson of Dr. John Redmond, one of the leading physicians of Philadelphia in his day, and first president of the College of Physicians. Dr. Coxe had the reputation of being one of the most diligent students in Philadelphia. He was very careful in his experiments, and in lecturing was very punctual in filling the whole of the hour allotted to him. The chair of midwifery, during my first course, was filled by Dr. Thomas

C. James, a very modest and agreeable gentleman of Quaker origin. He had such a sense of delicacy that he could not bring himself to lecture on the female organs of generation, but entrusted this part of his course to Dr. Horner. Although a graduate of the University of Pennsylvania, he subsequently became a pupil of Dr. Denman, of London, whose work on midwifery, together with that of Burns, and Dr. Dewees' translation of Baudelocque, constituted the principal works on that subject. Dr. James, after Denman, was a strong advocate for the short forceps.

Dr. Nathaniel Chapman, at this time, and for many years afterwards, filled the chair of the institutes and practice of medicine. He was a most eloquent and impressive lecturer, and the idol and tried friend and benefactor of the student. He was, moreover, a man of very marked ability, eloquence, and great social qualities. Having to teach the institutes, as well as the practice of medicine, it required two courses of lectures to complete the subject. The physiology of that day was very different from that of the present. The microscope had hardly begun to be applied to the study of anatomy, and so little did Dr. Chapman appreciate it, that it was a standing joke with him to quote old Leuwenhoeck as having discovered with his microscope "twenty thousand devils playing upon the point of a needle," thus foreshadowing some of the most remarkable discoveries of the present day, especially disease germs. Professor Chapman was thoroughly posted in the departments which he taught, at that time, although they have advanced wonderfully since his day. He was a man of very imposing presence rather above the medium height, always neat in his dress, perfectly well-bred, and always obliging and polite to the students. I believe that he did more for the advancement of medicine in his day than any other person with whom I was acquainted. He established a school called Chapman's Institute, for the benefit of his private students, of whom he always had thirty or forty, and other students who chose to attend. The building was in the rear of his house with a private entrance, and he employed, as teachers of his classes, gentlemen who afterwards became eminent professors at the University and at the Jefferson Medical College, among whom may be mentioned Professor William P. Dewees, Hugh L. Hodge, and John K. Mitchell.

Last, but not least, among the Faculty of that day, was Dr. Philip Syng Physick, the great American surgeon, who that winter, 1817-1818, delivered his last course of lectures on surgery. A pupil of John Hunter, he taught the doctrines of that great man. As I recall his course of lectures, it seems to me that he was one of the most impressive teachers that I have ever listened to. Dr. Physick was remarkable for great attention to details, and in his operations upon the cadaver, he carefully observed all the rules for operating upon the living body. He also recapitulated the lecture of the preceding day before going on with his subject, by questioning the students who occupied the first two rows of seats in the amphitheater. I may refer to one incident which may illustrate his method and his carefulness. On one occasion he stumped the whole class. He had been lecturing on lithotomy the preceding day, and he put the question to the first student, "What instruments should be provided for the operation?" The answer appeared to have been correctly given, but he was not satisfied. The question was repeated to the next student, and finally to the whole class, with the same result. Dr. Physick then said it was "a pin, gentlemen, a pin," that was needed to complete the list. This showed his precision, and impressed upon us the necessity of taking care never to go to an operation without the minutest preparation.

Dr. Physick was a man of medium height, with very regular features. His face at that time was pale, as if he suffered from delicate health. He was of very abstemious habits. I remember on one occasion, at a party given at his house, when the servant brought in a tray with wine, I was standing beside Dr. Chapman, when I placed my hand upon a decanter, as I supposed, of wine; Dr. Chapman touched my elbow, and told me not to take that; I filled the glass from another bottle, and afterward asked the doctor why he had checked me. He said the first was simply colored water that Dr. Physick had provided for his own use.

In speaking of Dr. Physick's teaching, I should also say that he always lectured extemporaneously, the didactic lectures on inflammation being read by Dr. Dorsey, his nephew. Dr. Physick was dignified in his deportment, and eminently grave; we rarely

saw a smile upon his face. His usual dress in the lecture-room was a blue coat with metal buttons, white vest, and drab pantaloons. He was remarkably staid and reserved in his manner, and was always regarded with reverence and great respect by the students. He never indulged in any flights of imagination, and was purely a practical lecturer who brought his knowledge from the stores of his large personal experience.

One of his favorite precepts was to insist upon great attention to diet after surgical operations. I may mention this anecdote. In one of his lectures he spoke of a very important surgical operation, and said that there was a necessity for attention to absolute diet. The next day, in recapitulating, he asked a student what was meant by absolute diet. The student said "toast or barley water." "Will any gentleman tell me what is meant by absolute diet?" appealing to the whole class. There was no reply. "Water, gentlemen, water." A precept I have never forgotten, and which, I think, is not sufficiently observed at the present day after important surgical operations.

The clinical teaching of that day was not given at the medical college, as it now is, but at the Pennsylvania hospital, and the Philadelphia almshouse, then in the city; each institution affording an excellent school of instruction to the students. As the clinical hours were the same at both institutions, I chose the almshouse, as affording a larger field.

Among the clinical teachers of that day, very few were superior to Dr. Joseph Parrish, who had been a pupil of Dr. Wistar. He was a man of most amiable character, thoroughly devoted to the advancement of the profession, having large classes of private students every year, to whom he lectured, and for whom he also provided able assistants to aid in teaching. One of these was the late Dr. George B. Wood. Dr. Parrish was a man of warm sympathies, and he testified to his benevolence by the manner in which he conducted his clinics. Let me give you an illustration. A poor weather-beaten sailor was brought to the almshouse suffering very much from rheumatism. Dr. Parrish ordered the man to be clothed in flannel, and have a bottle of porter daily. On the next clinical day, Dr. Parrish, on inquiring, found that neither had been attended to. He repeated the order, with a mild

rebuke to the steward. At the next visit, three days afterward, finding that his previous orders had been disobeyed, he called for the steward, and remained at the bedside of the patient until the order was fulfilled.

With regard to the treatment of that day, I shall say little ; the text-books then studied fairly present it to you: Would that I could speak more satisfactorily of the treatment of the insane as I remember it. They were generally confined in the basement of the almshouse in small cells, some with manacles, others with chains, seldom had they access to fresh air, and often they had nothing but loose straw for their bedding. This unhappy and inhuman state of things continued until Pinel and Esquirol established a course of treatment more consistent with the dictates of science and humanity. In a recent visit to the State Lunatic Hospital at Harrisburg, Pa., of which I am a trustee, not one of the four hundred inmates was the subject of mechanical restraint.

At that time the resident physicians at the almshouse were not graduates in medicine, but last-course students, who fulfilled their duties while preparing for graduation. The requirements for graduation were attendance upon two full courses of lectures, of four months each, a written thesis on some medical subject, attendance at the hospital or almshouse, and an oral examination in the presence of the whole faculty.

Many of the elderly gentlemen present to-day must have heard of the much-dreaded "green-box." During the time of Drs. Rush and Barton it was reported that favoritism was shown to their respective students, and the same was said of the students of Drs. Chapman and Dorsey. To obviate this, or the appearance of it, a large green screen was placed across one corner of the room, having a door behind, through which the candidate entered, and here underwent his examination, unknown to any one but the dean of the faculty. This mode of examination was adhered to until after the death of Dr. Dorsey, when it was optional with the student to go into the green-box or present himself openly before the faculty. Some ten or twelve candidates had such a terror of the green-box that they went to New York, where they obtained the degree of M.D. by undergoing an examination and paying the graduating fee.

As to my own experience in the green-box, it has been always an amusing recollection as to the terror with which it inspired me, and my intense relief at finding the dreaded ordeal consist of nothing more than a question or two as to my knowledge of Glauber's salts.

It was the time of calomel and the lancet. With regard to the one, I need not speak ; but of the latter I feel assured that the almost total disuse into which it has fallen has cost many valuable lives. From a very large experience in its use, I am satisfied, fully satisfied, that if we depended more on the early use of the lancet in the congestive and inflammatory states of many diseases, our practice would be more successful than it now is. At the present time there is too exclusive reliance upon medicines affecting the nervous and vascular systems, which act with less efficiency and are less prompt. It is, in my opinion, a very important subject, and I feel assured that ere long the lancet will be more freely used than it is now. In the congestive chills preceding inflammatory diseases, and in the cold stages of intermittents, I have frequently broken up the paroxysm, and relieved the patient by the lancet alone.

In the class of 1817-18, there were many men who afterwards became distinguished in their respective departments. Time will not permit me to enumerate them all.

In my day, previous to the establishment of medical societies throughout the country, and the organization of the American Medical Association, and the general adoption of the Code of Ethics, I saw many disastrous effects from the want of brotherly consideration and kindness. The medical men of that day were often in difficulties ; patients would be taken from one physician to another without ceremony ; and so great was the jealousy existing between them, that for more than twenty years after my graduation, it was impossible to form a medical society in my native city and county, because there were so many aspirants for the honors. Here let me speak of some of the difficulties I had to encounter in my early professional life. Instead of being taken by the hand by the older physicians, every obstacle was thrown in my path—consultations were refused, and the treatment of my patients unfavorably criticized.

By the establishment of medical societies and the adoption of the Code of Ethics, a wonderful change has been effected. We now feel it our duty to sustain our younger brethren, to treat them with courtesy and kindness, to save them from their errors, and encourage them in all their good work. Had the adoption of the Code of Ethics no other result than this, it would have been an invaluable blessing to the profession. But it has accomplished more. It has put the seal of condemnation upon all "isms," and developed an *esprit de corps* that has enlarged the boundaries of our science, and greatly increased the usefulness and social standing of the profession.

Now, gentlemen, before concluding, let me state that, being aware that reports and papers upon every important topics connected with the different departments of medicine will be presented by the chairman of the sections, and by individual members, I have not entered upon the discussion of any subject, either medical or surgical.

Our meetings are for the purpose of promoting social intercourse, as well as for the advancement of medical science; but we should devote sufficient time to the discussion of the various subjects presented to us, and not allow them to be too greatly interfered with by social entertainments.

Above all things, ever strive to maintain the honor and dignity of the profession. Let no selfish or mercenary consideration deter you from observing the laws laid down in our noble Code of Medical Ethics. Cultivate friendly relations with your local medical brethren, more particularly the younger: and regulate your intercourse with all men in such a way as to cast no stain upon the honor of the profession, which is in your keeping.

One word more, and I have done, and I say it chiefly as a word of encouragement to the younger among you. At the close of a long life, one devoted unreservedly to the study and practice of medicine, I will say that notwithstanding its uncertainties, its fatigues, its anxieties, its bitter disappointments. I am completely satisfied that in no other career can a man more fully accomplish his whole duty to God and to his fellow men; so that when life here is ended, it can truly said of him as—be it

said with all reverence—was said of him whom we should all imitate, *pertransivit benefaciendo*—he went about doing good. Trusting that our proceedings may be both harmonious and profitable to us all; and thanking you again for the honor you have conferred upon me, I sincerely hope that the recollections we shall carry home with us will be both agreeable and lasting.

A LARGE section of the senior class of the Woman's Medical College paid a visit to the county Insane Asylum at Jefferson on the 19th of May, and were treated with every courtesy by the able Superintendent, Dr. J. C. Spray, and his gentlemanly assistant, Dr. Alex. Thuemmln, who kindly escorted them through all the wards, and pointed out many items of interest to the medical student. After an hour spent in the wards, the party found themselves in the amusement hall, where Professor D. R. Brower held a most interesting clinic, presenting typical cases of the various forms of insanity at present in the institution.

A visit was then made to the Cook County Infirmary, near the asylum, under the care of Dr. A. W. Hagenbach, who did the honors of the institution in hospitable style, presenting a number of interesting types of paralysis and chronic surgical cases. Among the latter was one lately sent out from the homœopathic side of Cook County Hospital, accompanied with the ambiguous diagnosis of *pain*. The doctor resorted to the old-fogy treatment of relieving the left pleural cavity of thirty-one ounces of serum, with quite happy effect upon the condition of the patient, subsequently relieving him by the same method of a similar quantity.

Though notice had not been received of the intended visit, both the institutions presented the appearance of "visitor's day;" floors, woodwork and bedding spotless; the attendants quiet and orderly; the patients under thorough control. The gentlemen in charge assert this to be their everyday appearance, and are ready for inspection by the profession at any time. There are at present over eleven hundred patients in the two institutions.

Original Communications.

ARTICLE II.

REMOVAL OF BOTH OVARIES, with Report of a Case. By J. H. ETHERIDGE, M.D., Chicago. (Read before the Chicago Medical Society, September 16, 1882.)

"Battey's operation," or "oöphorectomy," or "normal ovariectomy," as the removal of the ovaries, or castration of women, is now termed, is one of the comparatively new operative procedures. As it promises to accomplish in relieving certain troubles more than any known method of treatment, it becomes an interesting and profitable field of study and observation.

The following report is of a case where oöphorectomy was the only untried means of relief. The patient, of a nervous, sanguine temperament, aged twenty-five years, had suffered for years from a dysmenorrhœa whose severity is seldom equalled.

In childhood she had measles twice. Nothing else bearing on her present condition seems to be worthy of mention till her twelfth or thirteenth year, when she began to suffer from hyperæsthesia over the ovarian and uterine regions, and has never known what it is to be free from it since.

Till her sixteenth year she was in and out of school, always overworking in study, thereby being compelled to remain out for a time.

She commenced to menstruate at fourteen and one-half years of age, and always flowed freely; suffered severely with each period from the first. Till her sixteenth birthday she was irregular, when she began to suffer intensely from a burning pain through the right ovarian region, hip and leg, accompanied by

tenderness over the right ovary. Very soon thereafter, in February, 1875, she was thrown from a sleigh, and sustained a severe shock, from the effects of which she did not rally for six months. Her disorder then was pronounced "concussion of the brain." Since that accident she has never been as well. For many months thereafter, she was delirious for a day and night with each menstrual period, and when at last sleep came, it was disturbed by her frequently starting up and crying out to be saved from falling. During three months she had constant cephalalgia to such an extent that she could not read nor write. Since then her neuralgia has increased. Whenever the fresh cerebral congestion incident to menstruation has been present, she has had general, as well as, at times, localized hyperæsthesia very severely. As the years have rolled by, this hyperæsthetic condition increased, till her general condition of suffering at menstruation was well-nigh beyond the power of words to describe.

After the accident, her dysmenorrhœa grew progressively worse in every particular, till in the past seven years she presented a condition of suffering, neurasthenia, helplessness and malnutrition pitiable in the extreme.

After the fall, the ovarian pains increased, and cephalalgia and rachialgia supervened. Tenderness over both ovaries and all along the spine gradually increased, until the patient became so hyperæsthetic that taking care of her was a problem indeed. She began then, also, to suffer from dysuria at the menstruations. At first the various hyperæsthesiæ were noticeable at the menstrual epoch. Gradually they became of longer duration, and ultimately were upon her continuously.

Soon after the fall before alluded to, local treatment was begun for a retroflexed uterus, and from that day to this she has had various treatment, but all of no avail. Pessaries of all designs for retroflexion were used (she once told me that she had used "ring pessaries-varying in size all the way from a lady's finger-ring up to the equator.") A year ago, division of the cervix was resorted to, to correct the retroflexion. This was followed by the use of cervical dilators for a time, when the flexion was declared cured. But the dysmenorrhœa continued to increase in severity each month, till, in November last, she began to shed dysmenorrhœal

membranes, in shreds and patches, which continued till June last.

In May, her dysmenorrhœal sufferings seemed to have reached the limit compatible with human endurance. At this time, the pains began three or four days before the appearance of the flow. Their manifestation was akin to the pains of Trousseau's "epileptiform neuralgia." Preceded for a brief time by the usual premonitory mutterings of warning in the abdomen, head, and spine, which rapidly increased in severity, till suddenly a violent flexion of the trunk on the thighs occurred, with her head thrown between the feet or legs, to be followed by as sudden a spasmodic movement throwing her into other various distortions, the periodic sufferings began. The periods of jactitation varied in length, and were accompanied with a general and exquisite hyperæsthesia; a cardiac asthenia and its accompanying pallor; an agonizingly haggard countenance; a supersensitiveness to sounds and sight; an anorexia and dysuria which seemed quite enough to fill the measure of her sufferings. These sufferings continued unchecked for periods varying from a few hours to three or four days before the flow, and for two or three days during the flow, when they gradually subsided and eventually disappeared. The physical prostration of each period was so great that she failed to accumulate any strength before the next period, and in this way her nutrition became depraved so that she was emaciated like one about to die of tuberculosis. At the rate at which she was progressing last spring, but a few more months of life apparently remained to her.

In May last, she began as usual to have severe pains and jactitation, which lasted about six hours, when she had two convulsions in rapid succession. After the last one she ceased breathing, and artificial respiration was resorted to for a period of four hours before she breathed spontaneously. After four days of great suffering, without any more convulsions, the flow supervened, and continued four or five days, with intense suffering.

After this period she was very feeble. She seemed to gain no strength, and when the June menstruation came on, she was about as feeble as she could be and endure much suffering. At this time, Dr. Emma N. Nichols, of Chicago, was with the patient, and through her skill and tireless watchfulness, the pains were

held greatly in check comparatively by opiates and bromides. She remained in the room with the patient night and day till her sufferings were past. The flow came on the fourth day, and the patient's extreme asthenia was marked by very feeble heart action. Nothing else especially marked this period.

In two weeks after the cessation of the flow, the patient was brought to Chicago, June 16, 1882, a distance of 250 miles, to undergo normal ovariectomy.

It should be mentioned, *en passant*, that in the past everything in the way of remedies had been used to control the sufferings of the patient. Opiates; bromides; the solanaceæ; chloroform; ether; heat; cold; electricity; had all been tried, but to no avail.

At this point, let me pass in review, 1st, the condition of the patient on her arrival in Chicago; 2nd, the objections to oöphorectomy; 3rd, the justifiability of the operation in her case.

Here was a patient presenting, objectively, two conspicuous conditions, viz: extreme dysmenorrhœa and chronic cerebral meningitis. The two together were rapidly killing her. The dysmenorrhœa was exaggerating, and, to all appearance, increasing the meningitis. So long as menstruation was performed, there could be no hope of curing or holding in abeyance the effects of the intracranial disorder. The disturbance of the nervous centers incident to menstruation always produced fresh meningeal congestion, which, superadded to the chronic meningeal trouble already existing, served only to push the patient helplessly along to the point beyond which recovery would become impossible. Till menstruation was stopped, attempts at checking the meningitis would avail nothing, and as the menopause was twenty years distant, its artificial production became debatable. Unless some cogent reasons exist why this step should not be taken, would I have been justified in withholding oöphorectomy and allowing this patient to die? General objections have been made to Battey's operation, and they are the following:

1st. Oöphorectomy is unjustifiable, because it unsexes a woman, *i. e.*, it prevents her conceiving and bearing children. This objection is needless, because the condition of my patient had already accomplished this for her very fully. Furthermore, she never would become pregnant till able to be up and around,

sufficiently at least to marry, and she could never do that as long as she menstruated and grew feebler every month.

2nd. It has been said that the operation destroys sexual desire, and hence is unjustifiable. Whosoever urges this objection speaks whereof he knows not, since those patients who have given testimony hereon almost unanimously aver that oöphorectomy does *not* destroy sexual desire. Quite to the contrary many women have said that the operation has been followed by increased sexual desire. In some cases, after the operation, the patients have been described as "being actually aggressive in their demeanor." I have seen oöpharectomy performed on seven patients and each one of them was bedridden, suffering, and helpless to an extent pitable in the extreme. It is quite impossible to understand how, in a single one of these cases such an argument against the operation could be seriously mentioned.

3rd. Again, it has been urged that useless operations will be performed. This must be granted, but it must be granted in regard to other surgical operations also. I have known a case of lithotomy where no stone existed; of a thoracentesis where no fluid existed; yet these failures were no argument against these operations.

4th. It has been said that oöphorectomy tends to masculinize a woman, as castration in the male tends to make him effeminate. Here the parity of the reasoning is lost. For if castration makes a man effeminate it *ought* to make a woman *more* effeminate. Herein the objector speaks also whereof he knows not, for the testimony of women thus operated on is wholly against any tendency to masculinity.

The operation performed under the carbolic spray, needs but a brief description. I was assisted by Dr. Davenport of the hospital staff, Dr. Nichols, and Prof. Parkes. The abdominal method was followed. The ovaries were easily secured and ligatures were applied as near to the uterus as possible, in order to remove as much of the tubes as I could. The spermatic arteries were also tied. The left ovary was slightly adherent, but was easily separated from its attachments. After closing the wound in the usual manner, and antiseptic dressing being carefully applied, the

patient was put to bed. Reaction followed in three hours satisfactorily.

Recovery from this time was tedious and trying in the extreme. The wound was nearly three months in healing completely. A bed-sore developed which was two months in disappearing. The general innutrition of the patient constituted the most annoying element in retarding recovery.

When the next menstrual period was due, the patient developed the usual prodromata, but anodynes controlled the sufferings greatly. A great diminution of sufferings and exhaustion was apparent.

The second period presented the usual sufferings to begin with, but lasted a few hours only. It was followed by many days of hallucinations and mental vagaries, accounted for only on the ground of cerebral innutrition. Generous feeding and very free stimulation slowly relieved her of this condition.

The third period was characterized by the usual preliminary sufferings, which very readily yielded to remedies, and was characterized by a brief after-period of depression.

Shortly afterward, the patient was taken home, and the fourth and last period after the operation was the briefest in sufferings.

Thus it would seem that slowly the habit of the nervous system in a bad direction is being destroyed. Soon the patient will be free from the monthly exacerbations of suffering, and she will lose trace of the menstrual function. Other oöphorectomy patients experience a similar reluctant abandoning of periodic suffering. At no time since the operation has the patient had anything answering to a menstrual flow. If ovulation produce menstruation, then I have no fear of the latter ever supervening again, because the spermatic arteries were obliterated by ligature, and any minute piece of remaining stroma of ovary will become atrophic and unable to furnish ova. Many patients frequently menstruate after this operation and after double ovariectomy. If the ovaries be wholly removed, of course no ovum is extruded in such a menstruation. For the explanation of this phenomenon it has been suggested that the menstrual flow comes on purely from habit. The latest explanation offered for menstruation after the removal of both ovaries is offered by Lawson Tait, I believe.

According to this gentleman, the fallopian tubes preside over menstruation. Ovulation has nothing to do with it. Hence, the complete removal of the tube is necessary to stop menstruation. This is a novel view, which, if true, offers the unfound explanation for ovulation occurring independent of menstruation, and hence makes clear the phenomenon of impregnation without menstruation, *e. g.*, during lactation.

Menstruation after oöphorectomy, so far as present observation extends, usually ceases after a few recurrences, and the patient, unreminded of its presence, soon loses trace of the time in the month when she ought to be unwell.

Oöphorectomy has been proposed for other conditions than dysmenorrhœa, as, 1st, uterine myomas accompanied by hæmorrhages that threaten the extinction of life; 2d, insanity pointing clearly to an ovarian origin; 3d, recurrent hematocele; 4, pyo- and hydro-salpinx, with pelvic peritonitis; 5th, hystero-epilepsy; 6th, irreducible hernia with inflammation; 7th, intumescence of the ovary, chronic oöphoritis, perioöphoritis, and commencing cystic degeneration; 8, atresia of the uterine canal and vagina sufficient to retain the menstrual flow.

Many cases of the successful checking of hæmorrhages from uterine fibrous tumors by oöphorectomy are now recorded. The risk to life is infinitely less in removing the ovaries in these cases than in removing the tumors. When successful, the cessation of the loss of blood quickly follows castration, and atrophy of the myoma results. The largest statistics given by one writer that I can now refer to are furnished by Dr. W. Wiedow on the subject of "castration for uterine myo-fibromata," in the *Centralblatt für Gynäkologie*, February 11, 1882. Twenty-one cases of bleeding fibroids are reported where Battey's operation was performed. Out of this number, three died from the operation. Recovery, with menopause produced by the operation, and diminution of the growth, followed in sixteen cases. One patient of this number menstruated nine times, and then recovered; four menstruated from one to four times and then recovered. One patient ceased menstruating three months, and then had a hæmorrhage, after which enucleation was performed and recovery followed. In the last case, menstruation continued five months,

when a hæmorrhage supervened ; afterward degeneration of the tumor followed, and death closed the scene in nine months. Thus it will be seen that seventeen out of twenty-one cases recovered. And when we recall the almost uniformly fatal result of severely bleeding uterine myo-fibromata, as all of these twenty-one cases were, we see that oöphorectomy offers what no other procedure can ever produce.

A few cases are recorded where insane women have been cured by the removal of their ovaries. This has led to the sweeping supposition that all insane women should be castrated. It is evident from *a priori* reasoning that that would not be sound treatment. Dr. Putzel, the pathologist of the New York Female Insane Asylum, failed to find any uterine or ovarian diseases in over one hundred autopsies made on inmates dying at that institution, and among those very one hundred patients there were doubtless many who would have been cured by oöphorectomy. After studying carefully the histories of all the cases of insanity cured by the removal of the ovaries, I am convinced that no insane woman should be operated upon whose earlier history does not show incontestably clearly a relation between the ovarian function and her malady. In many such cases, healthy ovaries will be removed, but the exciting cause of the insanity will go with them.

Recurrent hematoceles, with their resultant threatenings to life, may be regarded as a justifiable indication for oöphorectomy. The conditions permitting these hæmorrhages, once manifesting their presence, ought to be regarded with apprehension. The fact of a second hæmorrhage in any patient would lead me to debate the propriety of removing her ovaries. An easy recovery by absorption after the first occurrence of an hematocele—not an uncommon thing—is no assurance against inflammation or sepsis after subsequent attacks. To guard against these results, the now comparatively safe operation of castration is considered consonant with good surgical judgment.

Pyo-salpingitis and hydro-salpingitis are considered of sufficient gravity to warrant the removal of the ovaries. Results of operations therefor are both surprising and gratifying. Chronic ovaritis and chronic salpingitis, with recurrent attacks of pelvic

peritonitis, produce so much danger to life as to warrant this operative procedure. Patients thus afflicted are liable to become opiophagists through attempts to relieve sufferings.

Hystero-epilepsy of a clearly ovarian origin ought to make castration a debatable procedure. Many recorded cases show the wisdom of removing the ovaries in this malady. But one precaution which should control the judgment in operating in hystero epilepsy need be emphasized, and that is the incontestable relation of cause and effect between the abnormal condition of the ovaries and the manifestations of this disease. Without this relation, the wisdom of operating becomes questionable.

The two other causes enumerated above so clearly demand oöphorectomy that amplification is unnecessary.

1684 Michigan Avenue, Nov. 1, 1882.

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ARTICLE III.

A FEW REMARKS ON FOREIGN BODIES IN THE EXTERNAL AUDITORY MEATUS. By F. C. HOTZ, M.D., Chicago.

Although, as a general rule, it is advisable to remove foreign bodies in the external auditory meatus at an early day, we need not be unduly hasty about it; for the most foreign bodies that accidentally get into the meatus, if left alone, may remain there for an indefinite period without doing any harm. So, for instance, Politzer (in his Text Book) mentions the case of an old man from whose ear he took a plug of inspissated cerumen, embedded in which he found the piece of a slate pencil which the patient had put in his ear fifty years before. Similar observations are recorded in literature in sufficiently large number to attest the harmlessness of foreign bodies in the external auditory meatus.

But when, by some other cause, the ear becomes inflamed, the presence of a foreign body is apt to intensify the inflammation. This, for instance, was shown in the case of a boy, aged eight years, who was brought to me by his mother, in April, with the following history: Three years before, after measles, he had inflammation of the right ear with a slight discharge, which lasted three or four days; afterwards he complained of earache very often when he had a cold in his head, but there was no discharge from the ear. Four days ago he woke up in the night with violent pain in the right ear; during the day it subsided, but became very severe again the next night. The following day the ear began to discharge a muco-purulent fluid tinged with blood, but the earache did not subside. Yesterday his mother noticed a

fleshy growth in the ear, which by this morning had grown so large as to fill the entire orifice of the meatus.

I found the entrance of the external meatus plugged by a smooth, pretty consistent polypus, as large as a pea, and attached to the floor of the cartilaginous portion of the meatus. I removed it at once with the wire snare and touched the place it sprang from with chromic acid. The deeper portion of the auditory canal was filled with what seemed to be inspissated pus and earwax; but as the removal of the polypus had given the boy a great deal of pain, so that he began to be uneasy and nervous, I considered it prudent to abstain from further manipulations for the present, and plugged the meatus with absorbent cotton soaked with a saturated solution of boracic acid. When the boy came back next day, the cotton plug was quite dry and just ready to drop out of the auditory canal, and upon removing it, I saw in the meatus, near the external orifice, a roundish, black body, which could easily be seized with the forceps, and proved to be a large seed of a watermelon. This seed must have advanced toward the entrance of the meatus during the night, for on the previous day it lay in the deepest portion of that canal, where its dark color, mixed with the pus and granulations around it, made the whole mass look like inspissated wax and pus. After the meatus was cleansed, its walls presented the rose red surface characteristic of otitis diffusa. The membr. tymp. also was quite red, and anterior and parallel to the handle of the malleus there was a small, oblong perforation, with smooth and indurated edges, through which a muco-purulent secretion oozed out. A few insufflations of impalpable boracic acid arrested the secretion and restored the natural state of the external meatus, but the perforation of the membr. tympani did not close.

This perforation presented all the signs of an old lesion, and was evidently the product of the otitis media catarrhalis the boy had three years ago. How and where the melon seed got in his ear, the boy could or would not tell; but we may presume that it has been in the deeper part of the meatus probably since last summer without causing any inconvenience. But when recently the otitis media was started up again by a cold (of which the nose and throat showed ample evidence), the presence of the seed favored

the propagation of the inflammation from the tympanic cavity to the external auditory meatus, and undoubtedly was the chief cause of the rapid growth of polypoid granulations upon the raw integument of the auditory canal. But for this otitis media, the seed might have remained in the ear unnoticed for a long time.

It is very well to remember this fact of the harmlessness of the most foreign bodies in a healthy ear, particularly when the patient is a child (and the majority of these cases are children), and an over-anxious mother is urging the doctor to remove the foreign body at all hazards. If, under such circumstances, the physician does not proceed with calm deliberation, weighing carefully the chances of succeeding with removing a foreign body from the ear of a child intensely scared by the excited talk and actions of his mother; if he makes improper, rash attempts at the removal of the foreign body, he is apt to do greater harm to the ear, and to inflict more pain upon the child than the foreign body ever is likely to do. The external auditory meatus cannot be syringed properly if the head is moved just at the moment when the water is thrown into the meatus, and by no means is it safe to introduce an instrument (for instance, a sharp hook, which is a very unsafe instrument for removing beans, peas, etc.,) into the depth of the meatus while the child may jerk his head.

If, therefore, a child is brought to a physician for the removal of a foreign body from the ear, and he does not succeed by a few attempts with the syringe, because the child struggles, he should desist from further endeavors, unless he is prepared to put the child under the influence of an anæsthetic. It always has proven, and always will prove a sad mistake to persist by brute force in trying to remove the foreign body when the child is unmanageable from fear or any other cause. These improper attempts will only injure the ear, and drive the foreign body deeper into the ext. auditory meatus, way through the membr. tympani into the middle ear.

For instance, in August, Viola K., a delicate girl, aged three years, was brought to my office by her parents, who were in a state of the greatest anxiety. One week before, the child had put a dry grain of corn in her right ear. A physician was sum-

moned immediately. After a few unsuccessful attempts with forceps, during which the ear began to bleed, he chloroformed the child, syringed the ear, and assured the parents the corn had come out with the water. But the mother asserted positively she had seen the yellow body in the ear on the day before they came to me. Whether she was right or the physician, I could not determine at once, for the ear was so tender that a proper examination without chloroform was out of the question; and the integument of the ext. meatus was so swollen, that even under narcosis, its deeper portion could not be inspected, and as I regarded this violent otitis as the result of improper surgical interference rather than as being produced by the foreign body, I desisted from any further examination for the present, and prescribed a solution of boracic acid, to be dropped into the ear three or four times per day.

As I expected, the inflammation readily subsided under this treatment, but the child did not come back until October 12. The meatus was then in a normal condition, and I could easily see the yellow dry corn in the depth of the meatus upon the membr. tympani. The child, however, was so scared by past experience, that I put it under the influence of chloroform. A small, sharp hook passed behind the corn brought it out with the greatest facility.

In this connection, one other instance may be briefly related, in which the ear was more seriously injured by imprudent endeavors to remove the foreign body: Jim B., six years old, was brought to my office September 6, in the afternoon. In the morning he had put one of his incisor teeth that had just fallen out into his right ear. His mother took him at once to a physician, who, as she put it, "worked at the ear until it bled awfully, but he did not get the tooth." After the blood clots were removed from the meatus by means of absorbent cotton. I could see the white tooth on the membr. tymp., but the ear was very sensitive, so much so that the syringing caused a great deal of pain. I therefore put the boy under the influence of chloroform, when I had not the least difficulty in removing the tooth. I found then that the membr. tymp. was perforated at the point where the tooth had laid against it. This perforation was caused by the

sharp point of the tooth where it was forced down into the meatus by the ill-advised manipulations of the physician. No permanent damage, however, resulted from it, for the ear did not become inflamed, and the perforation healed in the course of one week.

Be sure that the foreign body is in the ear before you proceed to remove it. This proposition is so self-evident that any further comment seems superfluous. And yet, to use Dr Roosa's words,* "ears have been syringed—much worse, have been treated with instruments; membranæ tympani have been broken; ossicles have been dragged out, and meningitis and death have been caused by neglect of this simple rule." And why is this simple rule neglected? Because physicians often take it for granted that the foreign body must be in the ear of the patient, as his parents and friends say so. But we should not take their word for it, but should ascertain its presence by a proper examination; we should not rely upon what we are told, but upon what we can see. Now, this must not be understood as if I meant to say that patients habitually conceal the truth, or purposely tell a lie. I believe that patients, with few exceptions, give us their story as truthfully as they know it, and we seldom have an occasion to doubt their veracity. But in the matter of foreign bodies, we must not accept the patient's word, or the statement of anybody else, as sufficient evidence, because they themselves may be mistaken, or the foreign body which they have felt or seen in the ear or eye, may have come out by the time they consult a physician. Just as we sometimes find a foreign body in the eye or ear, while the patient was not aware of its presence, so we meet patients who are positively convinced that there is a foreign body in the eye or ear, when the proper examination shows there is none there. How firm this belief may sometimes be, the following case may show:

Last year, in March, a young lady came to me to have a pin removed from her right ear. Her mother, who came with her, was so excited that she could scarcely compose herself enough to tell me what had happened. At last, however, I learned that her daughter, the previous day, used a pin to relieve a disagreeable

* *N. Y. Med. Record*, Dec. 10, 1881.

itching in her right ear, and while she was scratching the meatus with the head of the pin, it slipped from her fingers, and as she could not find it anywhere, she concluded it must be in the ear. They went at once to a physician, who, upon the opinion of the women, and without examination, operated upon the ear with forceps to extract the pin. After several unsuccessful attempts, he gave up, saying he could feel the pin, but his forceps could not grasp it tightly enough. He had evidently mistaken a projection of the osseous meatus for the pin; for when I examined the ear, I found no pin in it, but saw several abrasions of the osseous meatus. The mother was quite distracted when I did not produce the pin; since that physician had told her he could feel the pin, she was thoroughly convinced that it was there, and when I declared I could not see a pin in the ear, and that I thought it had dropped out, she would not accept this explanation, but concluded that it had gone further into the head of her poor daughter; she saw it already traveling through the brain, and pictured to herself the most terrible consequences. Fortunately, however, the young lady did not get sick, and after a few days her mother had overcome her grief and anxiety.

Such and similar occurrences may be my apology for closing this paper with the following remarks: When we consider how little trouble it is to make a proper examination of the ear and meatus, and when we consider how much suffering a physician can relieve by intelligent treatment, based upon a proper examination of the ext. aud. meatus—is it then not very strange that as yet comparatively so few physicians are in the habit of making a proper examination when they are consulted upon some affection of the ext. auditory meatus. Why is it? The proper examination of the meatus requires nothing more than a good illumination of this canal. Now, this does not require any special skill or training; it does not require any costly apparatus, and it does not require much time. A few dollars will buy the necessary instruments (reflector and funnel specula), and anybody with good eyesight can make the examination in a few minutes. There is, therefore, no more excuse for a physician to attend to a difficulty of the ear and meatus without the proper examination, than there is for him to diagnosticate and prescribe for pneumonia

without auscultation and percussion of the chest. It is no greater trouble to carry a reflector than a stethoscope; but there is no doubt that the former can be used to much greater *direct* benefit of patients than the latter. It renders the interior of the meatus accessible to our view, so that any operation or medicinal application can be made as easily and precisely as if done upon the external integument. Without the aid of the reflector, the introduction of an instrument into the deeper portion of the meatus is about as prudent and safe as fast sailing in a dense fog; you are likely to strike a reef when you least expect it.

ARTICLE IV.

MASSAGE—ITS APPLICATION. By FRANKLIN H. MARTIN, M.D., Assistant to Nervous Department of St. Joseph's Hospital, and Clinical Lecturer in the Gynecological Department of South Side Dispensary, Chicago.

The word *massage*, according to Piorry, is taken from the Greek (rub or knead), and according to Savary from the Arabic word *mass* (softly squeeze).

Massage was practiced by the Chinese over 3,000 years B. C.; it was also practiced with considerable success and favor by the ancient Greeks and Romans. In tracing the interesting and eventful history of this subject, one finds that "movement" treatment, in some form or other, has been practiced by almost every people who have left a medical history. It was practiced rationally by the ancient Greeks and Romans; it was practiced by the ancient Persians, and others of later date, for the superhuman healing powers supposed to be imparted by the hands of the operator; it was and is practiced by the Sandwich and other Pacific islanders as an after-dinner luxury; it has been, and is yet, even in our own present enlightenment, unscientifically practiced by numerous indiscriminating impostors and quacks. On account of its many mysterious and unsavory connections, massage is naturally looked upon by investigating therapeutists with not a little distrust, and in consequence, a fertile field of therapeutics has, until very recently, been left comparatively unexplored. Another reason that may be given for the unpopularity

and primitiveness of the therapeutics of massage, is the fact that so many of our general practitioners have not the time to spare from a busy family practice that is necessary to perfect themselves in an art that requires no little practice and knack, as well as a peculiar physiological and anatomical knowledge.

Massage, as now generally accepted by the profession, includes all kinds of mechanical manipulations and movements, of whatever nature, used by the physicians for their curative effect on diseases. Strictly speaking, however, it includes only those kneadings, rubbings, slappings and frictions that can be accomplished by the operative's hands alone, while the patient's body and muscles are allowed to remain practically passive. We, therefore, it will be seen, do not include under the head of massage gymnastic exercises and the so-called "movement cure," although we recognize in them powerful aids in the treatment of many forms of diseases, when discriminately and scientifically applied.

The room in which massage is given should be well carpeted and have connected with it a small dressing and toilet apartment. The temperature of the room should be about 75° F. The patient to be treated, after disrobing, which is absolutely necessary, should lie upon a table or lounge, the person being protected by a light flannel spread. In the office may be used a narrow, upholstered table, without springs, about thirty inches in height, twenty-eight inches in width and six feet in length. It should be well upholstered with moss or hair, covered firmly with rep or leather. In this you have a comfortable, yet, what is desirable, a firm, unyielding bed, of a convenient height. I use for this purpose a table of my own device, the bed of which is in two parts, connected near the center by double-acting hinges, which allow either the head or the foot of the bed to be raised or lowered and retained at any angle. The movement is accomplished by a suitable ratchet combination. The two parts, by a simple arrangement, are made to fold together, when not in use as a bed, making an excellent gynæcological table, and at the same time occupying but little space.

The different movements used by masseurs are many. These movements have been variously named and classified, according to the fancies of different operators. I will adopt the classifi-

cation used by Professor von Mosengeil in his description of the French method of massage. He describes the movements under four heads: First, *Effleurage*; second, *Massage d friction*; third, *Petresage*; and fourth, *Tappotement*.

The patient to be manipulated should be instructed to lie perfectly passive, with muscles relaxed. When the growth of hair on some particular part to be manipulated is heavy, the surface should be shaved, otherwise, even when the massage is light, inflammation of the hair bulbs is often produced. A thin growth of fine hair is not objectionable. It is not only unnecessary to use a thick oil or lubricating substance on the part to be masséed, as some masseurs recommend, but it positively defeats to a marked degree the principal effects desired. Where a part is lubricated, friction is lost, and friction is highly necessary to complete massage. In fact, lubricants, to my mind hamper all the principal movements by making the parts uncomfortable. However, in some few cases where the skin after the massage is left dry and harsh, you may anoint the surface with a little vaseline, rubbing it in well; this leaves the skin soft, and at the same time obviates any tendency to inflammation of the hair bulbs. In doing away with lubricants, of course we do not lose sight of the fact that it is, many times, desirable to administer certain remedies by inunction. That may be done, however, without reference to massage.

By *Effleurage* we mean centripetal strokes, which are performed with the palms of both hands. It is the variety of massage that is used in the stroking treatment of inflamed and enlarged joints, œdematous swellings, etc. It is usually necessary to begin with light strokes, until the tender tissues become gradually more and more tolerant, when the pressure of the hands can be increased and the stroke quickened. The increased force should be exerted gradually from the beginning of the stroke, the intensity of the pressure reaching its climax at the middle of the movement and then again lessening, allowing the hand to be removed by gradual lightened pressure while the other hand is being applied. In this way a much greater pressure and more friction is agreeably tolerated than could possibly be if the hands were applied with the same force

suddenly. In manipulating an inflamed joint, or a diseased part of any kind, the change of hands should be made at the most painful point, for it is at that point the stroke is lightest. If the part to be operated upon is too small to admit of using the whole palmar surface of the hand, use only the palmar surface of the fingers. The gentle pressure centrally directed, not the friction, is the principal factor in effleurage. Therefore the movements need not necessarily be rapidly performed. A masseur must be well practiced, and at the same time very skillful, to be able to manipulate properly an inflamed knee-joint and use over 150 strokes a minute. It can be done, however, and one can only imagine the great skill it must require, when it is remembered the sensation to be experienced by the possessor of that sensitive knee-joint, is one of agreeable constant pressure.

By these movements, the absorption of pathological fluid exudates is promoted. Exudates in serous cavities, joint cavities, and in cellular tissues, in all parts of the body, are by direct mechanical force dispersed. Venous and lymphatic circulations are primarily directly forced into action, thereby aiding secondarily, by a *vis à frontis*, the arterial circulation. As the circulation is increased, the tissue change is increased, oxidation takes place more rapidly, and thereby the temperature is increased in the part. It can readily be seen without much stretch of the imagination, how absorption of extravasated blood, blood exudates, or the products of old chronic inflammation, is promoted by effleurage. By the strokes with accompanying pressure, the pathological fluid is spread over a greater space, allowing it to come in contact with a greater number of absorbents, the more solid products of disease are emulsified, and the solid particles subdivided, allowing them to be more readily taken up by the absorbents. The absorbent vessels, both capillary, vascular and lymphatic, are capable of more work, on account of the tonicity given them by the increased blood supply, and therefore absorb with greater rapidity the foreign particles of tissue that have already been partly prepared for absorption. Not only does all this seem rational, but still more, the stroking movements in the direction of the venous and lymphatic vessels, with the accompanying pressure, not only naturally, but actually forces, by

mechanical pressure, the flow of their contents. Some therapists go so far as to say that the emulsified particles are actually pressed into the absorbent vessels. Stroking in any other direction than toward the blood center is only applicable in exceptional cases, on account of its directly retarding the lymph and venous circulation. Still, there are cases, for instance, where there is an extraordinary fluid accumulation, in which stroking in different directions might assist in spreading the fluid over a greater absorptive territory, and thereby facilitate the absorptive process.

Every inflammatory swelling, of course, it would not be safe to treat by massage, as the tissues might contain infectious material, and by promoting its absorption or distribution, the infection would contaminate otherwise healthy tissues. Massage is absolutely contraindicated in all cases of venous inflammation, on account of the liability of emboli being detached and thrown into the circulating blood from the diseased coats of the vessels. The evil consequences of such a result can easily be imagined. The absorption of soft fibrous tissues, fungoid accumulations, etc., may be promoted by the crushing that their tissues receive by the proper application of effleurage.

After this stroking process has been performed for some time, the skin becomes red, the patient feels a warm glow over the surface of the part, and by the touch, as well as the thermometer, the temperature is found to be increased. This condition of stimulation lasts for some hours after the manipulation has ceased, and a delicious sense of restfulness in the part is experienced by the patient as the result.

Where the parts to be manipulated are very tender, effleurage should be commenced by using light and not very energetic strokes over the diseased portion, until the over-sensibility gradually diminishes.

Massage à friction is the variety of manipulation that is accomplished by the finger-tips of one hand vigorously rubbing from the periphery toward the center, followed by the finger-tips of the other hand with a slow, stroking movement. This variety is used both in general massage, and also in promoting absorption of superficial inflammatory exudation. The portions of semi-solid morbid tissue that the finger-tips of the first hand crush and

rub up or emulsify, the other hand spread and determine toward the center, and thereby promote their absorption. The proper performance of massage & friction requires more skill and patient practice than any of the other varieties of massage, because of the entirely different movements required of the fingers of the two hands. It is peculiarly difficult to perform the rapid rubbing movements with the left hand while the right follows with the slow stroking movements.

By *Petrissage*, we mean a kneading of the parts. One grasps deeply a fleshy mass of tissue, and rolls it gently in the hands, allowing it to gradually escape from one hand as it is grasped with the other. As the part is being rolled in the hand it should be squeezed with more or less force, according to the toleration of the tissues. The general rolling movement should be in the direction of the center of the body. Where the muscles of a limb are receiving this treatment, the hands should grasp the limb on either side at the distal end, and an irregular, rolling motion of both hands in opposite directions, with considerable pressure, and a constant determination of the movements toward the central end of the limb, the hands not being removed until the whole limb has been traversed.

Petrissage is used in kneading the deep muscles of the back and the different viscera that can be reached through the thin abdominal walls, as well as the muscles of the abdomen themselves. Through the walls of the abdomen the uterus, the liver and the spleen can with greater or less success, according to the corpulency of the patient, be manipulated by this method, while the stomach, the intestines, especially the large intestines, can be influenced by this kneading process as by no other method.

Tappotement is the name of the last division of massage that we have to describe. It includes all the flagellations, the slappings, beating and pounding movements that may be performed with the hands of the operator, or any little device he may find to take the place of the hand. *Tappotement* may be performed with the flat palm of the fingers, by a succession of light, rapid slaps, or the whole open palm of the hands by a succession of slower, harder blows. The effect of the former is simply to stimulate the circulation in the skin; the latter affects in the same

way somewhat deeper tissues. The tips of the fingers, the ends on a plane, may be used; the ulnar border of the hand is often used; where harder blows are required, the knuckles of the closed hand may be used; there are also various kinds of instruments that have been manufactured for this purpose, from India-rubber, whalebone, wood, and other materials. These devices serve some very good purposes, but cannot compare in efficacy with the well-trained hand.

General massage includes all these varieties of manipulations, systematically combined and rationally applied, that we have with considerable minuteness described. In applying massage for its general effect on the system, the masseur should commence, 1st, at the hands, and manipulate in the direction of the trunk; 2d, with the feet, and manipulate in the direction of the trunk; 3rd, with the head; and 4th, with the trunk itself, directing all manipulations toward the center of circulation.

To commence, the manipulator takes the distended hand of the patient in his left hand with either the palmar or dorsal surface uppermost, and supporting it in that position, applies friction by rapid ascending strokes with the palmar tips of the fingers of the right hand. These movements are applied to the palmar dorsal and sides of each and all the fingers; they are then each rolled transversely in the closed hand of the operator.

The same ascending rapid friction strokes will then be applied to the metacarpal and carpal region with one hand, while the other may follow with slower strokes, in the same direction; these movements to be followed by gentle kneading of the more fleshy parts. Passing on to the forearm and arm, similar movements may be repeated (from the wrist to the elbow, and from elbow to shoulder) to those used in the metacarpal and carpal regions—that is, massage & friction followed by pettrissage. The arm is a very convenient portion of the body for both of these processes. The strokes necessary are of convenient length, and the fleshy masses are easily kneaded. About five minutes should be occupied in thoroughly manipulating each upper extremity.

The feet may be manipulated in the same general manner as the hands, the strokes, of course, necessarily being longer. The metacarpal and carpal region are first treated with ascending

strokes in rapid succession, followed by the slower kneading strokes.

Transverse kneading is applied by grasping the foot in both hands, and drawing and rubbing the tissues in either direction. The leg and thigh come next in succession; each in their turn are treated similar to the corresponding parts of the upper extremity. More time will necessarily be required, however, in manipulating the large, unwieldy muscles of the leg and thigh than the corresponding parts of the upper extremity. In kneading the fleshy masses at the upper part of the thigh and gluteal region, commence kneading the superficial muscles with the fingers, and as the deeper muscles are called in, use both hands with considerable pressure, and impart to the mass a rolling motion, endeavoring to have the direction of the motion in opposite directions. The tissues of the back are next manipulated. A convenient place for commencing is at the back of the neck, beginning with descending strokes from the occiput. Every portion of the back should first be gone over by the *massage à friction*, vigorously applied. The strokes here may be both ascending and descending, and of a length convenient to the operator. These rapid, short strokes of one hand, followed by the slow, regular strokes of the other, are to be followed by *effleurage* and deep *pettrissage*. The latter should be given special attention, as it is the only method by which the deeper muscles of the back can be reached. The kneadings here are usually applied transversely, in a direction away from the spine.

The chest is treated in the same general way as the back. The strokes should be from the sternum toward the spine, following the direction of the pectoral muscles toward their insertion. Rapid and short strokings are especially applicable here, followed by long kneading strokes.

The abdomen requires careful treatment. The massage here should be of a slow kneading variety (*pettrissage*), and the direction that of the ascending, transverse, and descending colon.

After the whole body has been manipulated in the general methods described above, about five minutes should be spent in going over the whole surface with rapid slapping (*tapottement*) movements, applied by the palms of the hands. These move-

ments may be accomplished with great rapidity by skilful alternating of the two hands.

For the proper application of general massage, about one hour in time is required. The time required on the several parts may be roughly estimated as follows: Upper extremities, each five minutes; lower extremities, each eight to ten minutes; trunk, twenty-five to thirty minutes; and the general *tapottement* five to ten minutes. Of course, it is unnecessary to say these are not invariable rules. One patient may tolerate and require double the massage of his neighbor. Also, as therapeutical indications vary, so will the intelligent masseur find it necessary to constantly modify his manipulations to meet each individual case.

We find it necessary to postpone for a later writing the consideration of the physiological effects and therapeutical indications and applications of massage, at which time, also, the mode of its application to special organs will be considered.

2139 Wabash Ave.

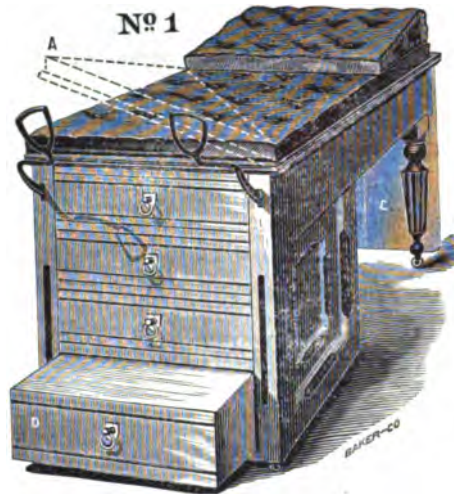
ARTICLE V.

A NEW OPERATING TABLE. By FRANKLIN H. MARTIN, M.D.,
Clinical Lecturer in the Gynæcological Department of South
Side Dispensary, Chicago.

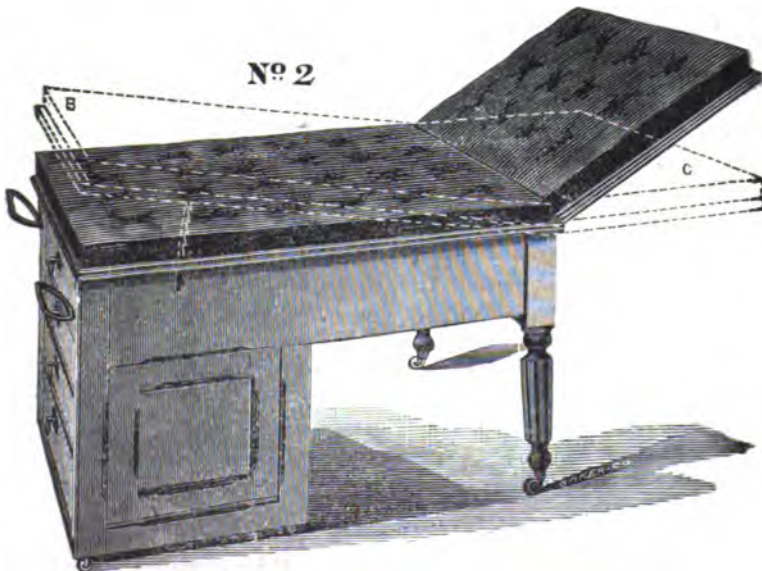
The accompanying wood cuts give a fair representation of a combined office bed and gynæcological and general operating table that I have for some time used in my office. In presenting this table to the profession, I make no particular claim for originality, except in the table as a whole. It is the successful combination of numerous valuable ideas into one compact piece of office furniture that particularly recommends it.

The cuts explain themselves. No. 2 represents the combination as a bed. The extension (c), by a suitable ratchet combination, can be lowered or raised to any angle with the bed of the table; when extended on a level with the bed, it makes an excellent general operating table; when not in use, it can

be lowered to right angle to plane of bed, leaving an excellent gynæcological table, as represented in No. 1. It has the ordi-



dary convenient proportions. The bed is nicely and firmly upholstered and covered with rep or leather. The lower drawer



(D) can be used as a step in mounting the table; the foot supporters, or stirrups, are made at such an angle that by them

the knees of the patient are naturally widely separated. The foot supports are removed easily, when not in use.

For Sims' position the table possesses superior advantages. The front end of the bed of the table can be raised and retained at any angle by the side ratchet bar (see dotted lines in cut 1, B), thereby elevating the hips of the patient. At the same time the buttocks can be still more elevated by the arrangement represented by the dotted lines in cut 1 (A). By this simple arrangement the patient is retained in so desirable a position that I have many times been able, without an assistant, to make a satisfactory examination with Sims' speculum.

The table, as here illustrated, makes a very nice piece of office furniture. It is artistically manufactured of black walnut, highly polished, with nickel-plated trimmings, contains a suit of useful drawers for instruments and chemicals, is nicely upholstered, and in every way would be an ornament to any office. I may be pardoned if I say that it does great credit to the manufacturer, Mr. Wm. Proctor, of the firm of Proctor & Wood, of this city, who has so satisfactorily carried out my idea.

2139 Wabash Avenue.

ARTICLE VI.

ETIOLOGY OF URETHRAL INFLAMMATION. By HENRY J. REYNOLDS, M. D., Orion, Mich. (Read before the Michigan State Medical Society, at Kalamazoo, in May, 1883.)

The value of a careful investigation and correct knowledge of the etiology of individual cases of urethral inflammation cannot be overestimated. It is not only a very important matter with a view to the intelligent treatment of each case, but also in a moral or medico-legal sense, with a view to justice to the individual so affected; to justice between the persons so affected and the person concerned in the supposed source of contagion; and still further, we can imagine a case where it would involve the question of justice between man and wife.

Though, in a great majority of cases, urethral inflammation

may be ascribed to one principal cause, viz: that of infection from the virus of the specific form of disease known as gonorrhœa, yet there are numerous other causes giving rise to a form of disease not clinically differing from true gonorrhœa, and to all appearance almost identical with it; both being inflammations of the urethra, associated with the discharge of pus or mucopus, as the case may be, and having no diagnostic features by which the one may be differentiated with certainty from the other. No intelligent physician will doubt for a moment the possibility, at least, of having a discharge from the urethra, with all the accompanying symptoms of true gonorrhœa, when the disease, nevertheless, may have arisen from some cause other than that of contact with the specific virus of gonorrhœa, and still, I think it is a too common practice with physicians in general, where the cause is obscure, to ascribe the disease to contact, during the sexual act, with a diseased person of the opposite sex. There is no doubt that many an innocent person has been wrongfully accused, and thereby seriously injured in this respect, and as Van Buren has said, "it is better that a hundred of the guilty should escape, than that one innocent person should be accused."

The various forms of urethral inflammation may be summed up under two principal heads, viz:—simple urethritis, and specific or virulent urethritis.

By the term simple urethritis, I would embrace all those forms of urethral inflammation not caused or produced by contact with what is known as gonorrhœal virus; these various forms differing only in their etiology and extent, and not in the quality of the inflammatory action.

This inflammation, under favorable circumstances, usually runs a short, mild course, and may be produced by almost any kind of irritation, such as, for instance, a foul, acrid or decomposing menstrual or leucorrhœal discharge; strongly acid or concentrated urine; injury by the rough use of urethral instruments; passage of stone fragments or quantities of large uric acid crystals; irritation to the perineum, as in horseback exercise, riding on a wagon without springs, etc. Any of the above causes are capable of producing a simple urethritis, no doubt, but are more particularly

so when combined with pre-existing stricture, idiosyncrasy, uncleanliness, impaired urethral tone, as from sexual excess, etc. Inflammation produced by any of these causes, though tending to run a mild course and get well rapidly, will, under unfavorable circumstances, frequently remain very stubborn and unyielding to treatment.

A simple urethritis from any cause, once fully established, can almost invariably be aggravated by the use of too strong injections, together with acrid or irritating urine, perineal irritation and general dissipation. In such a case, it may assume fully as virulent a form as true gonorrhœa from contagion, leaving all the evil consequences, as gleet, stricture, etc., and may even, in my opinion, contain the necessary contagious elements to impart disease readily to others by contact with the same.

The mildest form of a simple mucous catarrh from the meatus may be ultimately aggravated into a most virulent urethritis by the indiscreet use of a too strong injection in an unusually sensitive urethra. I have seen the inflammation greatly increased by the injection of a cheap insoluble form of sulphate of zinc, some of the crystals remaining undissolved, and being carried into the urethra in that state. Other cases I have seen greatly aggravated by simply riding on the cars; the warmth from the cushioned seat and the constant jarring motion of course being the cause.

Hence, a man may acquire, without sexual, or even "water-closet" exposure, a disease almost, if not entirely identical with true gonorrhœa from contagion; the only difference, if any, between which and true gonorrhœa being that it is *possibly* devoid of the elements of contagion.

All physicians are no doubt familiar with the contagious character of purulent conjunctivitis; even a catarrhal form of conjunctivitis may be transmitted from one to another by contagion. Both of these diseases, it is generally, if not universally conceded, may arise spontaneously; that is, entirely independently of contagious influences. Here, then, is an inflammation of a mucous membrane developing spontaneously, as it were, into a violent, contagious disease. Now, it seems highly probable that the same thing may and does take place in the mucous membrane of the

urethra, and hence may be developed, without contagion, a disease possessing all the distinguishing characteristics of true gonorrhœa. The disease is now no longer simple urethritis, but has become developed, either in the same individual or through a series of inoculations, into a specific, virulent, or contagious urethritis.

The following cases, the veracity of the statements and history in each case being, to my mind, beyond a question, furnish illustrations of simple urethritis, or urethritis without contagion.

Case I. F. C., commercial traveler, æt. thirty, with good constitution and somewhat dissipated habits, came under my care for gleet in 1879. Examined and found stricture, for which patient declined submitting to any operative treatment. The discharge continued more or less until the summer of 1880, when it ceased altogether. In the fall of 1881, or more than a year after the discharge had disappeared, I was again consulted, patient stating that the old disease had come back on him. Stated also that he had positively not had any exposure to new disease, which was in all probability true, as he was engaged to be married soon. In this case the disease was evidently not due to gonorrhœal infection, but probably chiefly to the stricture.

Case II. R. J., æt. twenty-eight, driver of fast horses; good habits and good constitution; wears suspensory bandage, however, for bad varicocele, contracted in fall of 1880, though without having had any suspicious intercourse; a disease, to all appearances, true gonorrhœa.

The discharge continued in abundance for five weeks, and was followed by gleet, which lasted four weeks, and a little increased frequency of urination, which continued for a time after the gleet stopped. No examination made, but quite probably a small amount of stricture existed. In one year after the first attack, patient had another attack, which however, was more mild; not lasting over three or four weeks, and not followed by any gleet or other bad symptoms. In the following spring, a third attack set in. This attack was mild at first, but owing to riding on a sulkey without springs (which every time seemed to increase the trouble), violent exercise, etc., the disease lingered and grew gradually worse, and finally, after having run a very severe

course, was followed by gleet which has lasted ever since. On September 14, 1882, six months from date of last attack, I examined and found stricture at two and one-half ($2\frac{1}{2}$) inches and at six and one-half ($6\frac{1}{2}$) inches from the meatus. It might be well to mention that there had been no suspicious intercourse previous to any of these attacks, and that the last intercourse of any kind prior to the last attack was at least twelve days before the appearance of the discharge. It is extremely probable, therefore, that the last two attacks, at least, in this case, were not the result of gonorrhœal contagion, but were produced by the following causes: stricture, resulting from first attack; the perineal irritation from riding the sulkey; the irritating pressure of the band of the suspensory bandage behind the scrotum upon the urethra; strongly acid urine, etc. The irritation from riding the sulkey and the pressure of the suspensory bandage both, however, the patient stated, increased the intensity of the disease when present.

Numerous other cases similar to the above might be quoted, would time and space permit, but these, which no doubt accord with the experience of many practitioners, may help to illustrate the point I wish to establish, viz., that we are, much more frequently than we readily concede, called upon to treat cases of urethral inflammation which we diagnosticate as true gonorrhœa, where the real disease is only a simple urethritis, being produced by some of the numerous causes outside of gonorrhœal contagion.

With regard to the cause of what I should designate the specific or virulent form of the disease, I will say but little in this paper. It is, of course, always said to be the result of contact with the propagating element of the discharge of the so-called true gonorrhœa. It seems probable in my mind, however, that a contagious, virulent, or specific form of disease may be developed from contact with the discharge from a violent form of simple urethritis, especially where uncleanness and other circumstances favor the development of the same exist.

In conclusion I will add, that while, as a general thing, it makes little or no difference to the physical well-being of those affected whether all cases of simple urethritis be called by the name of, or even treated as gonorrhœa, I can imagine a case

where such a course might be productive of great evil and damage, both to the patient and physician, and which would be in reality little short of, and possibly as actionable for damage as, real malpractice.

ARTICLE VII.

PATENT MEDICINE. By A. L. CRAIG, M.D., Galesburg, Ill.
Read before the Military Tract Med. Association, May 8, 1883.

It must be that to-day we are witnessing the ushering in of the patent medicine era.

For years this branch of business has been gradually and rapidly assuming the immense proportions which it now presents.

It has been so successfully managed that it has become a recognized trade, and millions of money have been invested in this kind of enterprise. That, as a business, it has been immensely successful is affirmed by the appearances of wealth of its enterprising managers, as exhibited in their fine palatial mansions and beautiful grounds, their large, substantial laboratories and manufacturing factories, and in the extravagant manner in which they advertise their nostrums.

It is a traffic which annually wrings millions of money from the suffering ignorant and credulous, and offers but little in return but disappointment and chagrin.

It is a most fortunate thing for the patent medicine business that the world is one of disease and suffering, and the proprietors of these nostrums are fully aware of the fact that one who is sick or suffering will turn where there is the most encouragement offered. No means are spared to place their nostrums on the market; no means that money can provide is left untried. The best of literary talent is enlisted and paid extravagantly to write advertisements, sensational circulars, pamphlets, and even certificates.

Men are continually racking their brains for some new and novel way for the more showy and attractive manner in which to catch the public eye.

Their fallacious advice is to be found intermingled with more or less useful and instructive reading in the yearly distribution of almanacs, of which millions are annually scattered broadcast, in all languages of the civilized world. Rocks, buildings and fences are covered with glittering advertisements, and we are told that even the flag of our Union has been prostituted for this purpose. Our secular, religious; and even the medical press, are subsidized in the interest of this trade, and, finally, it must be admitted that certificates, purporting to come from medical men, are published, claiming to have used and prescribed certain of these remedies with gratifying results.

Is it any wonder that, after all the inducements held out by these advertisements in the shape of circulars and almanacs—especially the latter—telling, as the people say, “just how I feel,” followed by the certificates of medical men—in many cases trumped up, no doubt, and, too, by the prescribing of them by members of the profession—is it any wonder, I ask, that the masses invest their money in such goods?

I think not, as more is guaranteed by them than any honest practitioner could promise.

As I said a moment ago, certainly we are about to witness a new era in the patent medicine business. A new impetus has been given the trade by the recent abolishment of the revenue tax.

A movement was instituted in the winter of 1881 and 1882, by Vogeler & Co., prominent proprietary medicine men of Baltimore, for the purpose of securing the repeal of the revenue tax on patent medicine, perfumes, etc., setting forth the claim that the tax was onerous, and that its repeal was fully justifiable; that it was a war levy, and the exigency having passed, the tax should no longer remain.

It was further set forth that these goods were not luxuries, but necessities, inasmuch as they represented by far the greatest amount of medicine used in this country.

Also that, as the revenue existed, it was really a double taxation; first on the raw material, and then in the manufactured state, amounting to 8 or 10 per cent.

It was hoped that Congress would pay no attention to this memorial. But with the press subsidized to the extent it is, it

was hoping for too much, and with the combined influence of the press and the lobby, the repeal was effected, and the new law goes into effect either the first of July or October next.

The proprietary medicine tax of late years has amounted to nearly two millions of dollars annually, and the repeal of this tax will accrue to the benefit of the proprietor only, as all jobbing houses have been notified that there will be no change in the price of their medicines.

I look upon the new law as an infamous act, and as the outgrowth of corrupt legislation. This business is beginning to assume immense proportions. It is making tremendous strides with each succeeding year, and as it looms up before us, its colossal appearance is enough to make legitimate pharmacy and medicine quail and look about for a remedy against this certain enemy, and for a new lease of life.

As matters exist at present, and in the direction they are certainly tending, it is only a question of time when pharmacy will be pushed to the wall, and the business of the manufacture and prescribing of medicine will become a mere nothing compared with what it ought to be and should be; when drug stores will be scarcely anything else than a depot for patent medicines, and any ignoramus a competent so-called druggist.

I do not doubt that some of our patent medicines are possessed of some virtue, and if properly recommended by their proprietors for certain restricted cases, would offer the purchaser a fair assurance that he was getting what he really wanted and needed.

But the wholesale recommendation of each kind of medicine for nearly every ill embraced in the catalogue of diseases, constitutes a fraud of the first magnitude.

Now, in view of what has been said, the question arises, what shall we do to be saved? What kind of steps shall we take to stop this traffic, and curtail it of its present dimensions, and abort the influence it has over the American people?

I say American, because the manufacture and taking of patent medicines is peculiarly a custom of this country.

It cannot be denied that this abuse has crept very largely into American life, and no doubt, like some other of our social evils,

is the result of our large and rapid development, and finally as a result of the enterprising and energetic way in which these remedies have been placed and maintained before the public; notices of all their virtues being in all our papers, magazines and journals; circulars and certificates carried by mail and messenger to our hearthstones, and posters staring us in the face wherever we go, in town, country, forest or plain—all heralding to the suffering a certain and speedy cure for all pain and disease.

How are we going to head off this kind of thing, and abort its influence? I confess I hardly know. We have an immense moneyed power to battle with; an interest that acknowledged, in their memorial to Congress, when praying for the repeal of the tax, that in the last twenty years they had paid the press \$100,000,000; and of course the bulk of this amount has been spent in the last few years.

Vogeler & Co., the St. Jacob's oil men, spent, themselves, last year, over \$400,000 in advertising their remedy.

Druggists cannot fight them by refusing to handle their goods, because they are manufactured for sale, and the proprietors have the money to push them, and the refusal to handle them would only be to drive the trade to some other class of business men, and would not result in the decrease of the sale of such goods.

I do not see that the medical fraternity can wield very much influence in this matter, as every intelligent citizen knows that a doctor, with but few exceptions, will never advise any one to use a patent medicine, or any kind of secret remedy—and more than that, people will often consult a physician concerning some ailment, use his prescription a few days, and then commence with a patent remedy, buy it in half-dozen lots, and take it for weeks uncomplainingly.

In speaking against the use of patent medicines, I do not want to be understood as waging war at the same time against trade-mark preparations, although, in the main, I think they should be passed by in prescribing.

I do think, however, that the trade-mark system is an unfortunate thing for us all, and hope it will not be long before it will be a thing of the past. We have quite a number of trade-mark preparations which have been and are being prescribed daily with

gratifying results. The formulæ of some of these remedies have been made known, and the rest should follow suit. The trade-mark is copyrighted, and is thus protected, and as a matter of fact, no harm can befall the proprietor if he make known the exact formula of the remedy and its mode of preparation. It should be done for the benefit of science, and, too, its formula being known will, in most cases, add to its popularity and increase its use.

The patent law, instituted as it was for the stimulation of inventive genius, protected them for a limited length of time, thus affording them opportunity of reaping somewhat of reward for their labors, is undoubtedly a beneficial law. This kind of law is a good thing, because it lays before the people the result of labor which will be protected, and compels one to improve on the article before them if they desire to cope successfully in the sale of their goods.

Not so with the law as it pertains to patent medicines. The secret is in the ownership of a name, and the composition and art of manufacture of the medicine is entirely unknown.

The patent law, as properly applied to pharmacy, must necessarily be productive of benefit, inasmuch as the limited control of processes and machinery for the manufacture, provided knowledge thereof for the benefit of pharmacy and science was fully published, would stimulate the invention of implements to attain the same end, and tend to discourage the manufacture of secret remedies.

Medical men should refrain from the use of any of the patent remedies, or from recommending them, and should also be much more careful and judicious in the use of trade-mark preparations, and in this way help to discourage the secrecy in the manufacture of medicine. But, in order to break down the demand and finally call a halt in the sale and use of patent medicine, it would appear to me that we must go back to the young and rising generation—to our schools—and see if we cannot find a remedy. It is useless to talk to the adult concerning the evil. You can't teach an old dog new tricks; we must, therefore, turn our attention to the young ones.

I think the great secret of the success of the patent medicine business is to be found in the fact that, as a people, we are profoundly ignorant concerning our physical needs; how we are constituted; what, in brief, are the functions of our principal vital organs, and how we should take care of ourselves.

We know too little of hygiene, physiology and anatomy. Now, I think that in our common schools is the place to lay this kind of knowledge before the people. Give the young an insight of the nature of their physical being and what that being needs for its best preservation and existence.

Let them have this kind of knowledge as they advance to the life of an adult. Let us have a little more of this kind of education, and less of the higher mathematics, of the modern and ancient languages, of music and the fine accomplishments—all very well in their place, and highly necessary for the full complement of our high grade of social life, but they certainly should not crowd out and supplant the more practical and vital knowledge. I don't see any other way to stay the progress of this evil than by teaching the people what they need. And when they reach that period, when they come to have some knowledge concerning their needs and the means best adapted to their wants, they will refuse to use a secret nostrum. It will be repugnant to them, as it will not appeal to their sense of knowledge and prudence. It will not be in consonance with their teaching, and rather than buy something of which they have no knowledge whatever, they will buy some non-secret remedy or consult an intelligent physician.

We must look for a higher grade of education among the people, and also for more proficiency in the profession, before we can hope to see the final dissolution of the patent medicine traffic. It will not come before we have legislation doing away with the patenting of formulæ, and the system of trade-marks has been frowned down. In my opinion, we can only hope for this transition when the people have learned more fully what they need and want than they know to-day.

ARTICLE VIII.

THE TRUE ANTIDOTE FOR OPIUM. By I. H. STEARNS, M.D

The great antidote for pain is opium in its various forms of preparation, and, conversely, the antidote for opium in overdoses is pain.

In practice, the dose of the opiate is graduated by the amount of the pain, which, being great and persistent or continuous, will carry off a large amount of the drug without affecting the nervous centers. So in cases where there has been exhibited a large and dangerous dose of the opiate, the indications are plainly to cause pain to the patient which shall be continuous and unrelenting.

The question as to a simple and exquisite torture that is unceasing in its agonizing character, was long ago settled by the Inquisition, which resorted to the "thumb-screw." Any means by which a steady pressure upon the terminal branches of the nerves is made will answer the purpose. A hand vice upon each of the thumbs and a snap clothespin on each finger is most admirable and effective, and they should be kept on until they begin to feel painful, and then released one at a time.

Any physician can see the philosophy of the idea, and attention is called to it because only last night the writer had a case where the patient had purposely taken ten doses of morphine. In the absence of other facilities, twine was wound tightly around the terminal points of the thumbs and fingers, rendering them "black and blue," but they gave her no annoyance until after about ten hours, long previous to which time she was beyond danger. Let the physician remember that the real antidote to opium is pain and, as far as known, there is no other, notwithstanding the various drugs that have been from time to time fashionable in this regard, and many patients will be saved that would otherwise be lost.

Greenwood, Wis., May 20, 1883.

Notes From Private Practice.

ARTICLE IX.

A CASE OF NASO-PHARYNGEAL TUMOR. By DR. F. E. OLNEY, Warsaw, Ind. Operation by E. Fletcher Ingals, of Chicago.

H. L., aet. 19, farmer, called upon me for treatment for catarrh, June 1, 1882.

He stated that he had been affected for about a year, having been taken with an acute coryza. After suffering for some time he had consulted a general practitioner, but he had been under treatment for the past six months and seemed to be growing worse.

Examination anteriorly revealed sub-mucous infiltration of the inferior turbinated bones, and extensive inflammation of the nasal mucous membrane.

Posterior rhinoscopy revealed a tumor of the pharyngeal vault, which subsequently proved to be attached to the basilar process of the occipital bone.

It so filled the post-nasal space as to render nasal respiration quite difficult, and at times impossible.

The case was treated with various sprays and insufflation, and cauterization of the enlarged turbinated bones, together with parenchymatous injections into the tumor.

After a month of this treatment, without reduction of the growth, I advised an operation.

This was acquiesced in, and July 3, 1882, we repaired to Chicago, where I had previously secured the services of Prof. E. F. Ingals.

After a careful examination, Dr. Ingals concurring in my diagnosis, the operation was performed with the Galvano-Cautery *écraseur*, as follows :

Having passed a strip of rubber bandage through both nasal orifices, they were brought forward through the mouth, thereby drawing the velum anteriorly, and retaining it in such a position as to enable a more thorough inspection of the parts with the rhinoscopic mirror.

The next step was to adjust the platinum *écraseur*, for which Dr. Ingals is entitled to much credit, since it was well calculated to tax the patience of the most skillful surgeon as well as the ingenuity of the clever mechanic.

The tumor was so large that it was impossible to carry the wire over it with the finger ; however, by the aid of wire elevators, improvised by the doctor for the occasion, the wire was finally raised over the nodular surface of the tumor and secured about its base, care having been taken that the ends of the wire should not cross each other ; they were next passed through a double canula electrode, which was pushed through the nostril, back to the base of the tumor. The battery was then attached, and the operation was soon completed.

There was considerable hæmorrhage, which was checked by the insufflation of tannin into the post-nasal space.

The tumor measured one and one-half inches in its antero-posterior, and one and three-fourths in its vertical diameters. Its basilar attachment was about three-fourths of an inch in diameter.

It was nodulated and slightly pear shaped. No microscopic examination was made.

The result seemed to be all that could be desired, the parts healing kindly, and there was great improvement in his general health and in the condition of the nasal cavities.

Such seemed to be the condition until the end of the second month after the operation, when I found a reappearance of the tumor, which grew quite rapidly for the next two months, at which time it had gained about one-half its former size. Then it ceased to grow, and it had not enlarged when last seen by me, about six weeks ago.

The treatment since the operation has been by sprays and insufflation for the catarrh, together with an almost constant use of red clover tea.

The patient is now enjoying the best of health, and is only annoyed by the partial occlusion of the left post nasal space.

I have arranged to take the patient to Dr. Ingals for another operation as soon as he can spare the time. The doctor hopes to prevent a recurrence of the growth by repeated thorough cauterization of its stump with the galvano-cautery.

CONDENSED STATEMENT OF MORTALITY IN CHICAGO FOR THE MONTH OF MAY, 1888.

Total number of deaths, 910. The highest number of deaths from Phthisis Pulmonalis, 99; Diptheria, 37; Scarlet Fever, 35; Inanition, 25; Bronchitis, 43; Heart Disease, 32; Pneumonia, 60; Cerebral Meningitis, 29; Peritonitis, 11; Deaths by violence (including suicide), 50; Premature births, 24; Still births, 62; Deaths under five years, 424; under one year, 279; Males 476; Females, 433; White, 890; Colored, 20.

Comparative monthly mortality: May, 1881, 1,287; May, 1882, 1,021; April, 1883, 922; May, 1883, 910.

Highest Barometer, 30.290; Lowest Barometer, 29.484; Highest Temperature, 80.1; Lowest Temperature, 35.9.

As a great many physicians propose to visit the forthcoming Hygienic Exhibition at Berlin, we direct attention to the advantages offered by the Berlin Policlinic, in which lectures on otology, rhinoscopy, dermatology, syphilodology, laryngoscopy, neuropathology, electrotherapy, ophthalmology, etc., are regularly delivered.

Each course commences the first of the month, and lasts thirty days.

The Berlin Policlinic is situated, Louisen strasse, 51, opposite the Charity Hospital.

Society Reports.

ARTICLE X.

AMERICAN MEDICAL ASSOCIATION. Stated Meeting June 5, 1888.

The meeting was called to order by the Chairman of the Committee of Arrangements, Dr. X. C. Scott, and opened with prayer by the Bishop of the Cleveland diocese, Right Rev. Richard Gilmoure. Dr. Scott then introduced the president of the association, the venerable Dr. J. L. Atlee, of Lancaster, Pa., who assumed charge of the proceedings in a few appropriate words, and introduced Gen'l Ed. S. Myer, of Cleveland, who advanced to the front of the stage and, after pronouncing an eloquent eulogy upon the character and purposes of the association, welcomed them right royally to the homes and hospitality of the citizens of Cleveland, and wished them godspeed upon their labors.

After the address of welcome, the President invited the President and Vice Presidents of the State Medical Society of Ohio, then in session, to seats on the platform, including Dr. H. K. Cushing, (great applause). Dr. Scott explained this action by stating that at the meeting of the Association last year, the State Medical Society of Ohio was invited to hold its Annual Session in Cleveland at the same time, and the privileges of members extended to them for one year only. A specially large committee of arrangements had been appointed with this end in view. The proposed programme for the entire session was then announced, with the arrangements for the separate meetings of the different sections and their places of meeting. The meeting of the association of American Medical Editors was announced

at 7:30 in the evening, in Case Hall, previous to the reception in the Euclid Avenue Opera House at 9 p. m. Invitations were extended from a number of prominent citizens proffering the hospitality of their homes on Wednesday and Thursday evenings.

The chairman of the committee of arrangements called the attention of the association to various points of interest about the city. To the parks, the different manufacturing interests, to the rapid growth of Cleveland during the past decade, to the number of children in the schools, public libraries, electric lights and monuments, (the lower part of the city is illuminated by clusters of immense Brush Electric Lamps upon the heads of tall iron masts towering nearly 270 feet high. Euclid avenue, is also illuminated with the Brush light.) Members of associations in Canada were invited to participate in the proceedings. Dr. Scott also announced that every permanent member and delegate was expected to sign a pledge to support the code of ethics of this Association. Protests from various members against leaving out the names of those not having signed the national code of ethics, were read and referred to the Judiciary Committee. The annual address of the President was then read by him. It was unfortunate that the acoustic properties of Case Hall were unequal to the delivery of Dr. Atlee's address to a greater number of the audience than those immediately around him. However, his venerable appearance and dignified bearing, together with the universal respect felt towards him as one of the fathers of the profession, obtained for him the closest attention of his audience to its close.

After the loud applause subsided Dr. X. C. Scott announced the return rates of fare upon all the roads leading out of Cleveland.

Dr. Keller, of Ark., made a motion that the thanks of the association be returned to Dr. Atlee, for his interesting address; and that the paper be referred to the committee on publication. Unanimously carried. Dr. Hedge of Pa., then moved that the members of the Ohio State Medical Society be invited to sit with this association and receive its privileges for one year. Carried. The president then announced that each state delegation, at the

close of this session, meet and appoint one of its members as its representative, in the election of officers of the association for 1884.

Dr. Robinson, of Nashville, then asked for the report of the committee on credentials. After some delay the President announced that the committee were not ready to report. Dr. Billings, U. S. A., presented a communication from Dr. Mahomed, calling the attention of the association to certain action last year of the British Medical Association, on the subject of atmospheric conditions and their reference to disease, and moved they be referred to the appropriate committee on Hygiene. Carried.

Papers from Dr. Stewart on "A New Operation for Ranula," and on "Warren's New Cure for Hernia," were referred to their appropriate committees. A communication was read by the secretary from Dr. Dwight W. Joy, asking for a re-hearing of the evidence in his case, and referred to the Judicial Committee.

Dr. Didama, of N. Y., presented a communication from a New York member unable to attend by reason of exclusion of his State Society, as to the propriety of petitioning Congress to provide stations for additional meteorological observations in localities said to be suitable for the treatment of pulmonary diseases.

The Secretary then read the list of names of members registered. Some confusion arising, Dr. S. W. Gross, of Pa., suggested that, as many members were leaving the room, further reading be dispensed with. Dr. Toner, of Washington, explained that the reading was a formal decision as to membership. Discussion arose on the stage as to the propriety of each member answering to his name when called. The president decided however, that as all the members had registered the same morning it would not be necessary to answer to names.

After the reading of the names the Association adjourned to 9:30, Wednesday.

On the stage were the Vice Presidents of the association, Dr. H. S. Orme, of Cal., Eugene Grissom, N. C., J. A. Oosterlony, of Ky., A. J. Stone, Minn. Immediately after adjournment the state delegations each drew apart and selected representatives to nominate officers for 1884. The Pennsylvania delegation met on the stage

near the reporters table and nominated the venerable Dr. S. D. Gross, as their representative, instructing him to cast the vote of Pennsylvania for Austin Flint, Sr., for president for 1884, an amendment allowing him to use his discretion being voted down.

FIRST DAY.

The Section on Practical Medicine met in Y. M. C. A. Chapel, Dr. J. H. Hollister, of Ill., in the chair, Dr. J. G. Lee, Secretary.

Dr. R. D. Murray, presented a paper on yellow fever, which was read by T. W. Miller, of Ill. Quite free discussion followed by Drs. Campbell, of Ga., Palmer, of Ohio. Beach, of Mich., Bell of N. Y., Franklin, of Ohio, and Dr. J. B. Hamilton, of the Marine Hospital service. Paper referred to the committee on publication.

Dr. Wm. M. Beach, of Ohio, then read a paper on "Milk Sickness," which was discussed to some extent by Dr. Palmer, of Mich.

Section then adjourned to 2.30, Wednesday.

Section on Gynecology and Obstetrics.—A full attendance present. Dr. J. K. Bartlett, of Wisconsin, in the chair. Dr. G. H. Moses, Secretary. First paper, by Dr. W. H. Byford, of Illinois, on "Chronic Intra-Pelvic Inflammation," read by the Secretary, Dr. Byford being unable to appear in person.

Dr. Byford's object in writing the paper was to draw the attention of the profession to the danger of converting a chronic pelvic inflammation into a disastrous acute form, and gave the following summary of suggestions:

1st. The sometimes terrible effects of examinations or operations in the pelvis do not often take place when there is not a perceptible predisposing inflammation.

2d. The inflammation may be so slight as to be easily overlooked.

3d. It may be an original condition; the sequence of an attack long gone by; or it may be the product of some immediately previous examination or operation, the effects of which have not subsided.

4th. To avoid the dangers of acute inflammation, we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain, and when she

complains of pain, should desist, even at the sacrifice of complete diagnosis.

5th. Complaints of much tenderness to the touch or the use of instruments, especially in primiparous women, are sufficiently diagnostic of inflammation upon which to base treatment for that condition.

6th. If, with such tenderness, a thorough examination or an operation is imperative, it should be done under profound anæsthesia. There is no question but much less danger of ill effects is incurred in making examinations or operations upon susceptible subjects under the free use of anæsthetics.

7th. Examinations or operations should not be repeated till the effects of the first have entirely passed off.

8th. As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus, it should always be inspected, and its diagnosis be carefully considered in all cases of metritis.

9th. When chronic parametritis is present, it should be the chief, if not exclusive object of treatment until removed.

10th. It is not safe to use the uterine stem when there is perimetritic inflammation.

11th. It is especially dangerous to explore a displaced uterus when it is bound down by inflammatory adhesion, by any means which will overcome its fixedness by force.

12th. All local treatment of the uterus must be conducted with the greatest care in all cases where the complication is present.

The second paper was one by Dr. H. G. Landis, of Ohio, subject, "Post-Partum Polypoid Tumors," with two cases.

Third paper by Dr. H. O. Marcy, of Boston, Mass., on "Restoration of the Perineum by a New Method."

This new method consists in the use of German-silver wire for the sutures. This possesses elasticity sufficient to give lateral support when the ends are bent together, forming external support to the refreshed tissues.

The fourth paper in this section was one by Dr. R. S. Sutton, of Pennsylvania, entitled "Enterotomy as a Complication in Ovariectomy or Oöphorectomy," he having removed four inches of the small intestine a few months since successfully; the first

case in this country, the only other one on record being by Billroth, of Vienna.

Section adjourned to 2:30 Wednesday.

The Section on State Medicine met in the U. S. Court-room, in the Post-office building, a small attendance present, owing to conflicting announcements of the meeting at different places. The only paper presented was by Dr. A. L. Gihon, U. S. A., on "Medical Education the Fundamental Fact in Medical Ethics." Great interest was manifested in the paper, which was an extremely able production, the writer's position as member of an Examining Board for admission to the medical service of the United States Navy qualifying him admirably for observation of the educational attainments of this country. It is to be regretted we cannot give the paper in full.

Surgical Section, First Day, met in Case Hall, at 2:30 P. M., Dr. W. F. Peck, of Iowa, chairman; Dr. Paul F. Eve, of Tennessee, secretary. Attendance quite large; many ladies present.

First paper, R. A. Vance, on "A Radical Cure for Hernia by a New Method," which consists, in oblique inguinal hernia, of uniting the pillars of the ring by means of a deep suture passed subcutaneously with a peculiar semicircular needle.

Dr. Dudley P. Allen, of Cleveland, read a paper on "Comparison of Antiseptic and Non-Antiseptic Methods." In conclusion, the essayist dwelt upon the fact that different methods are of different application, and that while the spray might be most desirable in opening joints and in the atmosphere of hospitals, with hygienic surroundings, flooding might be equally efficient in certain other wounds, and that some prominent antiseptic such as iodoform, would be most appropriate where other antiseptics are inapplicable, as in removal of the tongue. Then, though there are certain dangers in the use of antiseptics, these are more than equalled by the dangers attendant upon their omission, especially in large hospitals, and that dangers of poisoning are certainly decreasing, as the use of antiseptics is better understood; and, further, that investigation may develop a method of securing antiseptic results less onerous and devoid of the disadvantages which now surround them. In conclusion, he expressed

his belief that the various antiseptic methods secured far better results than any other method.

In the discussion which followed, Dr. Mortimer, of Massachusetts, expressed the belief that Listerism would soon be a thing of the past, which was strongly taken exception to by Dr. Nancrede, of Philadelphia. Several others participated in the discussion.

The next paper, on the "Value of Early and Late Operations in Morbid Growths, Especially Malignant," was read by Dr. Samuel D. Gross, of Philadelphia, whose appearance was greeted with applause, and the paper received the profound attention of the audience throughout.

The paper strongly dwelt upon the importance of early operation in morbid growths, especially malignant, as soon as the diagnosis is unmistakable. The author sketched the mode of development of most morbid growths, and the points of special diagnosis indicating the operation for their removal, dwelt strongly upon the necessity of thorough knowledge of pathological anatomy, a branch of science, little cultivated in any of our schools, and almost totally neglected in most. It is not surprising that the art of diagnosis should be so little understood by the generality of practitioners, and so many errors committed in the examination of morbid growths. If there is any one thing in the organization of our medical colleges more culpable; I had almost said, more criminal, than any other, it is the exclusion from their curriculums of the study of pathological anatomy. Just in proportion as our knowledge of morbid structure is positive, accurate and comprehensive, will be the probability that we shall become skilled diagnosticians, and conversely. Hence, so long as this state of things exists, we shall look in vain for any marked improvement in this direction, and what is true in this respect is true alike of city and country practitioners, standing as they do upon the same unfortunate platform.

Dr. H. A. Martin, of Massachusetts, then followed with a paper upon the "Treatment of Synovial Diseases by a New Method," which consists of aspirating the sac and applying the rubber bandage to the joint.

Section then adjourned.

Section on Diseases of Children met at 2:30, in the City Council chamber. Neither chairman or secretary present. Dr. Chas. W. Earle, of Chicago, called to the chair, and Dr. E. L. Boothby appointed secretary.

None of the readers of papers on the day's programme having appeared, Dr. Earle read a short paper on "Cephalohæmatoma in the New-Born;" the most important question connected with which, the writer said, was diagnosis, and then gave four points for differentiating, namely, from caput succedaneum, which is cedematous, and does not fluctuate, being only a difficulty of the scalp and cellular tissue; congenital encephalocele never occurs on the cranial bones; a vascular tumor has sometimes the same boggy feeling noticed in caput succedaneum, but it has not the bony ridge surrounding cephalo-hæmatoma; cranial tabes is the name given to the softened cranial bones in children. As to treatment, the author advocated judicious non-interference. An extended discussion was indulged in upon the subject by Drs. Harris, Reed and Earle.

Adjourned.

Section on Dental and Aural Surgery met at 2:30, at the rooms of the Vocal Society. Dr. D. H. Goodwillie, of New York, in the chair, Dr. T. W. Brophy, of Ill., Sec'y.

Papers on the "Relations of Teeth to Other Organs," and "Amaurosis Dependent on Dental Irritation," were not read, as the authors were absent. The remaining one on "Erosion of the Teeth," was read by Dr. John H. Marshall. After this paper closed Drs. Henry, Noyes, Nichols and Benton, of New York, made emphatic objection to Dr. Goodwillie presiding over the meeting—having been informed that Dr. G. had registered as a delegate from the New York society, which was not allowed a delegation to the convention, under a protest from the judicial board. Dr. Goodwillie then resigned the chair to the secretary and Dr. Williams was elected temporary chairman. Dr. Marshall's paper was then discussed and the section adjourned.

Section on Ophthalmology, Laryngology and Otology met in the Board of Education rooms at 2:30 P. M. The chairman, Dr. A. W. Calhoun not present, Dr. J. J. Chisholm, of Mary.

land, nominated and elected. Dr. Carl Seiler, of Philadelphia, secretary.

First paper by Lawrence Turnbull, of Pa., on "Paralysis of the Facial Nerve in connection with Diseases of the Ear." Little discussion followed. Second paper not read. Third, a fine paper by Dr. W. B. Jarvis, of N. Y., on "Tonsillotomy by Ecrasement." The author advocated the use of the snare in the cases of hard hypertrophied tonsils (scirrhous tonsils) to avoid hæmorrhage. Paper was largely discussed. Most of the members present claimed that the hemorrhage was met in but comparatively few cases. Fourth paper by Dr. Carl Seiler, of Philadelphia, on the "Action of Nitrate of Silver on the Mucous Membrane of the Throat," read. The substance of the paper was that nitrate of silver is not a caustic in any strength, but that the slough often seen in such cases is due to localized inflammation caused by granules of oxide of silver deposited in the sub-epithelial tissues. Paper also largely discussed. The 5th and 6th papers read by title only. Authors not present. They were "Tumors of the Post Nasal Space," by Dr. E. Fletcher Ingals, Ill., and "Myringitis," by Dr. C. Williams, of Minn. Section adjourned.

WEDNESDAY, JUNE 6—SECOND DAY.

The Association was called to order at 9:30 A. M., by the President, and prayer offered by Rev. Charles S. Pomeroy, D.D.

The Secretary then read the names of the members who had been delegated by their respective States to nominate officers for the ensuing year, as follows:

W. O. Baldwin, Ala.; D. A. Linthicum, W. T. McNutt, Cal.; T. M. Hill, Conn.; H. K. Steele, Colo.; W. Marshall, Del.; D. C. Patterson, D. C.; E. Foster, Ga.; C. T. Parkes, Ill.; H. J. Wood, Ind.; W. S. Robertson, Iowa; L. S. McMurtry, Ky.; J. W. Dupree, La.; C. A. Savory, Mass.; J. J. Chisholm, Md.; B. H. Miller, Minn.; F. K. Owen, Mich.; E. H. Gregory, Mo.; A. J. Fuller, Me.; V. H. Coffman, Neb.; D. A. Watson, N. J.; E. Grissom, N. C.; H. D. Didama, N. Y.; W. M. Beach, O.; S. D. Gross, Pa.; A. Ballou, R. I.; R. A. Kinloch, S. C.; D. J. Roberts, Tenn.; H. C. Ghent, Tex.; A. Harris, Va.; J.

M. Lazalli, W. Va. - S. C. Johnson, Wis.; J. R. Smith, U. S. A.; T. U. Miller, U. S. Marine Hospital Service; A. L. Gihon, U. S. N. W. A. Tipton, N. M.; A. B. VanNelson, Dakota.

At the close of the reading, Dr. Pratt, of Michigan, called attention to the amendment to the constitution which he offered at the last meeting, to the effect that none but members present should be eligible to the offices of President, Vice-Presidents, Secretaries and Chairmen of sections, the Assistant Secretary, and members of the Judicial Council.

On motion, the amendment was taken from the table and adopted.

Dr. S. D. Gross presented a paper, signed by Dr. O. W. Holmes, Dr. Austin Flint and himself, recommending the memorializing of Congress on the subject of an appropriation for the National Medical Museum and Library.

Dr. H. A. Johnson then presented the following resolution:

First, That the American Medical Association respectfully urges upon Congress the importance of at once providing a commodious fire-proof building to contain the Army Medical Museum and Library.

Second, That the annual appropriation for the library should be sufficient to enable it to obtain all new medical publications of all countries as soon as they appear, and also to complete its collection of medical books heretofore published, and that, for that purpose, the sum of \$10,000 is considered a reasonable and proper annual appropriation, and Congress is requested to grant that sum, in addition to the amount required for the Medical Museum.

Third, That it is of the greatest importance that the index and catalogue of this library now in course of publication should be prepared as rapidly as possible for the press, and Congress is urged to make the necessary appropriation for the purpose.

Fourth, That a special committee of five be appointed, of which the President shall be *ex officio* chairman, to present this matter to Congress, and call the attention of State and local societies to the importance of furnishing Senators and members of Congress with information as to the value of the museum and library, and the estimation placed upon them by the medical profession of the United States.

These resolutions were adopted.

An invitation was then read extending an invitation to the Association to visit River Bank, six miles out on the lake shore, the country seat of Mr. D. P. Eels, a train being provided free of charge.

Dr. N. S. Davis read the report of the Board of Trustees appointed at the last meeting to conduct the process of establishing a journal, to be known as *The Journal of the American Medical Association*, in which the history of their proceedings was fully set forth. Nine members had constituted this board, of which Dr. N. S. Davis had been chosen President, and Dr. J. H. Packard, Secretary. The plan decided upon was to issue a journal containing thirty-two double-column pages of reading matter, suitably divided into departments of editorial, devoted to discussion of topics likely to promote the interests of the profession; an editorial department devoted to summary of the progress in various departments of medical science and practice; a department of correspondence, and for general items and intelligence.

Forty thousand circulars had been issued to members of the profession on the subject, each enclosed with a blank for reply. 2,150 answers had been received, of which 2,100 were unqualified expressions of approval of the plan. It was calculated that the aggregate subscription to begin with would be 2,500, which would produce an income of \$12,500 yearly. The advertisement patronage, under fair business management, would be probably not less than \$5,000 annually, which would yield an income of \$17,500 per year. The expense of printing 3,500 copies weekly was estimated at \$8,000 per year, leaving \$9,500 for salaries and other expenses. The salaries were estimated at not more than \$6,000, leaving \$3,500 for other expenses, such as scientific investigation in any direction determined upon by the Association. The Board had determined to recommend the publication of the journal—the place of publication to be in Chicago, the printing to be awarded to A. G. Newell, of Chicago. In conclusion, the reader introduced the following resolutions:

First, That the report of the Board of Trustees be accepted, and the recommendations contained therein be adopted with reference to establishing the journal.

Second, That the Board of Trustees be instructed to proceed with the publication of the journal at as early a date as possible, to take the place of the annual volume of "Transactions;" also to the effect that all orders upon the treasury for the payment of money be indorsed by the president of the Board of Trustees.

Dr. Brodie moved the adoption of the resolutions. Dr. Wylie moved as an amendment to the motion, that the report be printed and laid over till next day for discussion. The amendment was lost, and the motion carried by a large majority.

Dr. McMurtry, of Kentucky, of the Board of Trustees, announced that he had been instructed by the board to announce that it had unanimously selected Dr. N. S. Davis, of Illinois, as its editor in chief.

Dr. Davis then made an address, expressed his feeling of inability to comply with the requirements of the position, and stated some of the difficulties to be met with, warning the members not to expect too much of the new undertaking, or compare it too strictly with the *British Medical Journal*, which had been the work of years. He hoped, also, to be able to issue the first number in July next. He then resigned his membership of the Board of Trustees.

Dr. Cohen, of Philadelphia, moved that the Board of Trustees be instructed, in addition to the journal, to print annually a thin octavo volume containing the minutes of the Association. Discussion followed by Drs. Hubbard, Quimby and Byrd. Dr. Richardson, of Louisiana, moved to refer it to the Board of Trustees. Carried.

Dr. Busch, of Delaware, moved a vote of thanks to Dr. N. S. Davis for his long service to the Association. Carried.

There being four vacancies in the Board of Trustees, a committee were appointed to nominate the proper quota of members. Drs. Richardson, of Louisiana, Brodie, of Michigan, Hibbard, of Indiana, and X. C. Scott, of Ohio, constituted the committee.

Dr. Davis announced, in answer to a question, that the Judicial Council assumed all responsibility in placing the pledge to support the code of ethics of the American Medical Association on the blanks to be signed by delegates before registering.

Dr. Palmer, of Michigan, asked if the present condition of the

code was meant especially, or whether those who signed were expected to sustain all subsequent alterations as well?

Dr. Davis said, in reply, that any changes made by the Association would be considered binding on the members who signed the code. He explained also, that the custom of signing the code originated in the early days of the Association, when the members, as initiated, signed their names to the Constitution and By-Laws, but as the Association increased in numbers, the custom being clumsy and inconvenient, was allowed to lapse. Last year the question came up, and demanded a definite answer, What is the Code? A card was then provided for the signature of the loyal members.

Dr. Scott announced several additional protests against registration of certain members, which were referred to the Judicial Council.

The address of the Chairman of the Section of Practical Medicine was given by Dr. J. Hollister, of Illinois, on "The Progress of Medicine during the Past Year." The speaker dwelt largely on the results of microscopical investigation; the importance of the investigations of Koch, Bizzozero, Norris and others; made extended reference to the micro-organisms of leprosy, of gonorrhœa, the vaccine pustule, etc., and said that the question which concerns us most is not whether we can destroy bacteria, but whether they have not a greater vitality than the tissues of the human body, and whether, in the germicidal warfare, the human organism will not first succumb. In materia medica new remedies had been brought forward, but none seemed sufficiently important to attract special attention in the year's reports.

In conclusion, the speaker urged upon the attention of medical men the propriety of establishing a Medical Bureau, composed of say ten members, each to be appointed by the President, upon the recommendation of a nominating board consisting of one member carefully chosen by the profession in each State, the army and navy to be also represented. Let the members of this bureau be subject to removal only for cause, and each receive a salary of not less than ten thousand dollars annually, to be paid by fees from those who are applicants for the degree of Doctor of Medicine. Let the laws of the separate States be so modified

that the power of conferring degrees shall rest solely with this body. Let students graduated by this National Medical Bureau receive an honorary distinctive title, say that of National Fellow of Medicine. To such a movement, the colleges could offer none but selfish objections.

In such a plan as this there would be found the possibilities of a medical culture of the profession such as the world has not yet seen.

At the close of this paper, the Rocky Mountain Medical Association was announced to meet at the Weddell House in the evening. This consists of those surviving members and their wives who attended the last meeting of the Association in San Francisco.

The Committee on Vacancies in the Board of Trustees for the new journal reported the selection of Drs. G. O. Hooper, of Arkansas, Alonzo Garcelon, of Maine, and L. S. McMurtry, of Kentucky, to fill out the expired terms of office; Dr. J. H. Hollister of Illinois, to fill the place resigned by Dr. Davis.

The next proceeding being the address of the chairman of the Section in Obstetrics and Diseases of Women, by Dr. J. K. Bartlett, of Wisconsin, the President announced that, as Dr. Bartlett's voice was impaired, the paper would be read by Dr. Nicholas Senn, who then read the address, which presented a *resumé* of the progress of gynecological and obstetrical surgery.

Of Emmet's operation he said that prolonged observation had shown that undue influence had been attributed to the lesion, and experience has proven that the relief claimed to follow the operation is not uniformly attained.

Batley's operation received due consideration, and the conclusion reached that there are still reasonable doubts as to its efficacy in epilepsy or mania dependent, on Ovaritis.

Tait's operation was considered, and reference made at some length to the treatment of extra uterine pregnancy by electricity. As to the use of transfusion in cases of post-partem hemorrhage, confidence in it as a valuable therapeutic measure is on the wane. As to the obstetric forceps, the author spoke in terms of strong reprobation of the motive for their use, of hurrying the labor to secure time for a second engagement. Goodell's memo-

rable observation forcibly quoted: "To tell you the truth, such grave lesions to the mother and to the child also, are so constantly brought to my mind, that I am disposed to accept Baudeloque's dictum that, take it, all in all, the forceps have been more injurious than beneficial to society.

The judicious administration of ergot in the second stage of labor, regarding it as a valuable resource in cases of insufficient contraction, with no pelvic obstacle.

Anæsthetics in labor were discussed with the conclusion that if an anæsthetic ever produced disastrous results, it was due to the impurity of the agent, or want of proper discretion in the operator.

The subject of antiseptics received conservative treatment at length; and in conclusion, the speaker dwelt upon the absolute necessity of careful constitutional treatment in pelvic disease, claiming it had not received the attention due to it.

In conclusion, he remarked that specialism, when exclusively practiced, is apt to produce narrowness of view, and that the time when the present brilliant triumphs of the surgical gynaecologist will grow pale before the achievements of his medical co-workers.

Dr. Toner, of Washington, then presented his report on Necrology, which was referred to the Publication Committee.

The Association then adjourned.

Section on Practical Medicine met at the Euclid Avenue Opera House, Dr. J. H. Hollister, of Illinois, in the chair, Dr. J. G. Lee, secretary.

The first paper, by Thos. W. Rennolds, of Michigan, was on the subject of "The Alimentary Canal in Bronchitis and Phthisis."

The speaker said the abnormal condition of the portal and lacteal systems was often the predisposing cause of both acute and chronic affections in all parts of the respiratory tract. Acute tracheo-bronchitis was often caused by excess in the dietary elimination, with proportionally incomplete waste.

In view of this fact, in such cases the treatment should be prompt evacuation of the bowels, and restriction of the diet to a light liquid form.

He deprecated the use of ordinary cough mixtures to the ex-

clusion of this more rational treatment. Morphine, quinine, aconite and veratrum viride were usually the more appropriate remedies in the first stage, but did not equal this treatment without drugs to which he referred.

Derangement of the digestive system was still more causative of chronic bronchitis, and the treatment should have reference to this fact; where purulent, quinine was the best remedy in connection with the management pertaining to proper elimination.

Clothing should be sufficient, but not oppressive. A common mistake was wearing too much on the chest. He had several times seen striking improvement in expectoration follow the removal of two or three extra undershirts and a chamois leather lung protector.

Physical exercise involving free expansion of the lungs restored wonderfully their normal elasticity after an attack. It dissipated thickening and adhesions, just as continued free motion dissipated the thickening and adhesions around a recently inflamed joint.

Catarrhal fibroid phthisis was most frequently the result of neglected chronic bronchitis and should be treated in much the same way, not by Cod-liver oil alone or any other supposed specific, especially if they interfered with digestion; but the patient should cultivate out-door life, with plenty of physical exercise and wholesome mental occupation. Any region free from malaria, or unwholesome emanations, with a temperature permitting constant out-door life would answer for a resort.

At the close of the paper, Dr. W. T. Belfield, of Chicago, gave some illustrations of the micro-organisms of disease, with an oxy-hydrogen apparatus and solar microscope kindly furnished by Dr. McIntosh, of Chicago.

Dr. Belfield accompanied the exhibition of the slides with a running commentary upon the peculiar organism displayed.

At the close of the lecture Dr. Austin Flint, Jr., made some interesting extempore remarks; also Dr. Palmer, of Michigan, who offered Milk Sickness as a subject for microscopical investigation to histologists.

A paper followed by Dr. John V. Shoemaker, of Pennsylvania, on Mechanical Remedies in Skin Diseases. These are, accord-

ing to the essayist, massage, compression, blood-letting, incision, excision, enucleation, scooping, scraping, setons, cauterization; remedial measures which have been in vogue almost from time immemorial. The speaker exhibited his new dermatome and other appliances.

The session closed with a paper by Dr. L. B. Tuckerman on a new method of obtaining pancreatic juice, which was practically illustrated upon the animal. The process proved one of the most interesting events of the afternoon.

Section on Surgery and Anatomy—Second Day.—The chairman, Dr. Peck, called the section to order at 2 P. M., half an hour earlier than usual.

The chairman appointed a sub-committee on papers, consisting of Drs. McMurtry, of Kentucky, Moon, of New York, and Parkes, of Illinois, after which Dr. Robert Newman, of New York, read a paper on The Surgical Use of Electrolysis in Stricture of the Urethra.

On motion, the section agreed to hear the paper by Dr. J. R. Taylor, of New York, which was on the programme for the next day, on account of his compelled departure this evening.

The paper was on The Treatment of Fractures of the Long Bones, and was well illustrated by engravings and apparatus applied to the subject. The uncomfortable perineal band in fracture of the femur he has transformed into a comfortable sort of saddle which distributes the pressure of counter extension over the whole perineum. This saddle is made fast by straps to the head-board of the bed, while extension is made by a screw in the foot-board. In the adjustment of fractured ribs the Doctor brings the broken ends into place by raising the arms over the head, maintaining apposition by means of adhesive plaster closely applied. Of his treatment of fractured clavicle the author gave an illustration on the subject: how the traction is made mainly upon the body of the scapula, securing thereby perfect immobility. He contended strongly for simplicity and readiness in surgical apparatus and procedure.

Dr. Henry O. Marcy, of Boston, then read a paper on "The Comparative Value of Antiseptics." This paper consisted of a

detailed series of experiments with a full list of the known antiseptics, with rather surprising results in some instances.

Dr. L. H. Sayre, of New York, then read a paper entitled "Amputation below the Knee Joint in Preference to Brisement Forcé or Resection in *Certain Cases* of Deformity with Ankylosis." Illustrated by two cases; the first, of a lady who suffered amputation and walked upon an artificial limb in six weeks after operation, the second case an amputation performed six weeks since, in which the stump has thoroughly healed.

The next paper, "Report of a Case of Re-amputation at the Hip Joint; Secondary Hæmorrhage on Sixth Day; Ligature of the Primitive Iliac Artery," was received and referred without reading to the committee on publication.

Dr. E. M. Moon then read a very able paper on "The Treatment of Unreduced Dislocations of the Ulna in connection with Colle's Fracture." This paper excited prolonged discussion.

Another interesting paper was read by Dr. V. H. Coffman, of Omaha, Neb., entitled "Treatment of Tender Spines by Subcutaneous Incision." Close attention was given during the reading, and at its close many questions were asked the author as to his methods.

Session then adjourned.

Section on State Medicine.—Dr. Foster Pratt, of Michigan, in the chair.

Dr. H. A. Johnson explained the results accomplished by the Illinois State Board of Health. Since 1877, the date of its organization, about three thousand quacks, itinerants and non-descripts, who combined other callings with that of doctor, have been driven out of the State. The discussion following this paper occupied the time till adjournment, except a resolution introduced by Dr. Pratt, recognizing the labor and life work of the late Dr. William Farr, of England, in the organization, classification and compilation of vital statistics as an enduring monument to his ability and learning as a physician as the real incentive to and the foundation of our own sanitary work, and as a perpetual blessing to present and future generations of our universal humanity; entitling his name and fame to stand with that of other great men whose genius and labors have resulted in beneficent

revolutions of the medical, surgical and sanitary thought and activities of the civilized world.

Section on Gynecology and Obstetrics.—Meeting at Frohsinn Hall at 2:30 p. m. Dr. Bartlett in the chair. Dr. J. T. Jelks, of Arkansas, secretary.

The first and second papers not appearing, Dr. John Morris, Maryland, read his paper on "What Means Can be Judiciously Used to Shorten the Time and Lessen the Hours of Labor." The author described lingering labor, dividing it into three stages: First, when the head remains high up in the pelvis; second, when it has well descended into the pelvis, but the parts are tense and undilatable; third, when the head impinges upon the perinæum. He explained the procedures necessary at each of these stages, and when to use the last resort, the forceps. The paper was discussed mainly by Drs. McClure, of Pennsylvania; Reamy, of Ohio; Smart, of Michigan; Gordon, of Maine; Landis, of Ohio; Humiston, of Massachusetts; Robinson, of Pennsylvania, and others.

Dr. E. C. Dudley, of Illinois, then read his able paper on "The Immediate Application of Sutures in Puerperal Laceration of the Cervix and Perinæum." Paper discussed by Drs. Walker, of Kentucky; Jenks, of Illinois; Morris, of Baltimore; Maughs, of St. Louis; Ulrich, of Pennsylvania, and Parsons, of Michigan.

The closing paper of the session was one volunteered by W. N. Taylor on The History of Laparo-Elytrotomy, with a case detailed.

The section then adjourned.

Section on Diseases of Children—Met in the Council Chamber at 2:30 p. m., Dr. R. F. Blount in the chair. Dr. E. L. Boothby elected Secretary for the remainder of the session.

Dr. A. Y. P. Garnett, of Washington, read a paper on "Epidemic Jaundice Among Children," detailing an epidemic of this nature which had come under his care, for which no apparent cause could be assigned. Some discussion followed.

Dr. Alexander Harris, of Virginia, then read a paper on the "Unity of Diphtheritic and Membranous Croup." The doctor claimed that the diseases are identical; that the difference in the

degree of adhesiveness in the membrane is due only to the structure of the parts on which they exude. A warm and interesting discussion followed from nearly all the members of the section, the discussion being about equal between the unicists and dualists.

Dr. W. N. Myer, of Fort Wayne, Ind., presented a paper on "Surgical Treatment of Purulent Pleuritic Effusions." The author detailed a case of Empyema, giving his opinion that free incision should be employed in Empyema in childhood, and aspiration only in serous effusion.

Dr. Chas. W. Earle, of Illinois, then read an able and interesting paper on "A Plea for Pleasant Medication for Children and a more thorough Study of Infantile Therapeutics." He advised the profession to spend less time on the curve of a forceps or the shape of a bacteria, or the riding of gynæcological hobbies, and devote more attention to the making of palatable medicines for children. He suggested many ingenious methods of disguising and rendering palatable bitter and nauseous medicines. Some discussion followed.

Section then adjourned.

Section on Dental and Aural Surgery.—Section met in the Vocal Society rooms. Dr. Williams in the chair. None of the papers on the programme were present.

Dr. John Marshall reported a case of Caries of the Maxillary Bone. Considerable discussion followed which corroborated the experience of the speaker.

Dr. Talbot reported a case of Septicæmia from an alveolar abscess. After general discussion the section adjourned.

Section on Ophthalmology, Otology, etc.—Met at Board of Education, 2:30 P. M., second day. Dr. J. J. Chisholm, in the chair. Dr. Carl Seiler, Secretary.

First paper not on hand.

Second paper: "A Case Illustrating the Segmental Feature of Glaucoma." The drift of this paper was that Glaucoma would show itself occasionally in segmental distribution. The author discussed at length the pathology of Intra ocular Inflammation. Paper largely discussed.

Paper No. 3 on the programme not read. No. 4 also, but read by title.

Paper No. 5 by Dr. Lawrence Turnbull, of Pennsylvania, on "Tinnitus Aurium and the Deafness which Accompanies Bright's Disease." The paper asserted that there are certain aural symptoms peculiar to Bright's Disease. In the discussion following it was maintained those symptoms are not pathognomonic of Bright's Disease.

Paper No. 6, "Questions on the Ætiology of Some Forms of Lenticular Opacity," by Dr. J. L. Thompson, of Indiana, consisted of a collection of cases of peculiar opacity occurring in the lower periphery of the lens, this opacity sudden in occurrence, and lasting for years without change. Considerable discussion followed, the substance of which was that similar opacities had been due to various causes.

Section then adjourned.

THIRD DAY—JUNE 7.

The Association called to order by the President at 9:30 A. M., and prayer offered by Rev. Dr. N. S. Rulison. The President announced that he had already appointed delegates to the International Medical Congress at Amsterdam, and was now ready to appoint as delegates any members who wished to attend.

Dr. Keller, of Arkansas, called up his amendment to the Constitution offered last year, which provided that the time of the annual meeting be left to the Committee on Nominations, and not limited to the first Tuesday in June. The amendment was adopted.

Dr. Batchelor offered a resolution that the President appoint a committee, consisting of one or more members from each State, to influence legislation on the subject of the sale of intoxicants; adopted.

Dr. Foster Pratt offered the resolution which had been adopted in the Section on State Medicine the day before, in reference to the death of Dr. Wm. Farr; adopted.

Dr. Walter Hay, of Illinois, made a motion that a section on Psychological Medicine be established; laid over one year under the rules.

Dr. S. D. Gross offered a resolution in recognition of the necessity of trained nurses, that the Association recommends that training schools for nurses be established in every county of each State, instruction to be given gratuitously, or at rates which would not exclude the poor from their benefits; carried.

The report of the standing committee on Atmospheric Conditions and their relations to Disease, was made by the Chairman, Dr. N. S. Davis. He stated that a series of observations had been carried on at parallel points throughout the United States of the daily condition of the atmosphere, quantity of ozone, and presence of organic matter in the air. Interesting reports had thus been collected from different localities on the subject of endemic diseases. As to the prevalence of children's diseases of pneumonia, the methods of observation given in detail. The report was accompanied by extensive tables, and much credit given Professor Long as the collaborator, of the amount of organic matter daily present in the atmosphere during the entire past year for the first time in this country or any other. The report closed with an expression of thanks to Gen. Hazen, of the United States Signal Service, for uniform courtesy and favors extended, and a request for a continuance of the same. It was mentioned incidentally that not a physician in New York City could be secured to co-operate with the committee in making observations. The report was adopted.

Dr. Didama then called up the resolution presented by him on the first day—providing for a committee of five to petition Congress to establish observations in localities, said to be favorable to the treatment of pulmonary diseases, for the taking and compilation of climatic statistics on this subject. Referred to Committee on Atmospheric Conditions.

Dr. Reed, of Iowa, offered a resolution of condolence to the family of the late Dr. J. B. Hubbard, of Ashtabula, which was carried.

Dr. Davis moved that Dr. Didama be added to the Committee on Climatology.

The names of the delegates abroad were then read as follows: G. J. Engleman, St. Louis; N. M. Finley, Altoona, Pa.; Walter L. Zigler, Lancaster, Pa.; M. N. Alto, Armstrong County, Pa.;

R. B. Cole, San Francisco; Jos. H. Warren, Boston; C. N. Klein, Hamilton, O.; W. M. Lawlor, San Francisco; Henry Martin, Boston; J. C. Hutchinson, Brooklyn; A. M. Hawes, Detroit; Ed. Borck, St. Louis; T. F. Prewitt, St. Louis; E. P. Allen, Pa.; H. McCall, Mich.; I. M. Quimby, N. J.; S. T. Gordon, Maine.

Dr. Pollak, of St. Louis, offered a resolution on behalf of the St. Louis Medical Society, suggesting that, whereas many of the present provisions of the Code of Ethics are obsolete and that early revision is necessary, and no society except the American Medical Association has power to alter the present Code, but simply to ask for its revision; therefore, that the American Medical Association be requested to appoint a committee of one from each State for the purpose of taking into consideration the propriety of revision of the Code of Ethics of the American Medical Association and report thereon at the meeting of 1884.

It was moved and seconded by numbers of members in every part of the hall, that this resolution be laid on the table, and carried with half a dozen negatives and great applause.

Dr. Brodie, of Michigan, offered a resolution that all papers before being read should receive the approval of the Secretary of the Section in which it belonged.

A member made the invidious remark that many papers presented are not worth the paper they are written on. Resolution laid on the table.

Dr. M. L. Nardyz was received as a member by invitation on motion by Dr. Davis.

The address in Surgery was then delivered by Dr. W. F. Peck, of Iowa. It consisted of a review of the progress in the Surgical Science of the world during the past year made interesting comparison of the various shades of bacterian theory in etiology of disease, and concluded that practical surgery has not thus far been benefited by Koch's views—and that the condition of the problem of the management of wounds and other pathological processes by means of the so-called antiseptic methods suggests a move in the direction of greater confidence in the details of operative procedure and scrutinizing attention in extreme cleanliness in the minutiae of practice. Of the progress in invention

of instruments the author mentioned the compound ratchet splint offered by Dr. Stillman, of New York, of the various modifications of the Swan electric lamp for exploring the cavities of the body, mentioned the satisfactory progress in abdominal pathology, discussed Gastrotomy, Laparotomy, and the overlooked frequency of pathological conditions in the ilio-cæcal region; gave a case in detail of exploration of the abdominal cavity by incision, and the discovery of an obstruction of the bowels by a singular abnormal position of the vermiform appendix, which would have eventuated in death. The author dilated upon the importance of boldly opening the abdomen before the case becomes desperate. It proved an extremely interesting paper and received close attention to its close.

The President then introduced Dr. Foster Pratt, of Michigan who read the paper on the progress of sanitary science during the past year. Said he had no discoveries to offer, but could report progress, great especially during the past fifteen years. Municipalities are improving in methods of sanitary precaution. Attention has been called to the heating and lighting of our houses and other buildings. The causes of disease we find largely to depend upon fixed physical laws, and by the discovery of these we are able to prevent disease. In twenty-nine States sanitary organizations have been adopted, while eleven still refuse to make any provision for a State Board of Health, but when all the States have fallen into line then a majority of States will demand a National Board of Health.

Dr. Pratt paid a high tribute to the worth of the late Dr. Farr, of England, in originating the mode of collecting vital statistics. He gave descriptions of advanced methods of sanitary work in Michigan, and said we owe much of our advancement to ladies.

Paper was referred to the committee on publication.

The report of the treasurer was then read, showing a balance of \$903.96.

The Librarian reported an addition during the year of 112 distinct titles, making an aggregate of 5,713 distinct volumes, including monographs and reprints from library exchanges. The Librarian recommends that \$200 be placed at the disposal of the

library for securing and binding pamphlets, and \$50 for the usual subscription to the *Index Medicus*. The reports accepted and recommendations adopted.

The Committee on Publication, Dr. Fricke chairman, announced that an index to the twenty-three volumes of the association transactions was in course of preparation by the Librarian, of which 1,500 copies had been issued at a cost of \$500, and would be sold to the members at \$1 per volume. Report adopted.

After some delay the Committee on Nominations made the following report through the chairman, Dr. Eugene Grissom :

Place and time of meeting, Washington, first Tuesday in May, 1884.

For President, next year, AUSTIN FLINT, New York; Vice President, R. A. KINLOCH, Charleston, S. C.; Second Vice President, Dr. T. B. LESTER; Third, Dr. A. L. GIBON, U. S. N.; Fourth, DR. S. C. GORDON, Portland, Me.; Treasurer, R. J. DUNGLISON, Philadelphia; Librarian, DR. C. H. A. KLEINSCHMIDT, of Washington, D. C.; Chairman of Committee of Arrangements, DR. A. Y. P. GARNETT, of Washington, D. C.; Assistant Secretary, DR. D. W. PRENTISS.

The Judicial Council consists of Drs. F. D. Cunningham, Virginia; H. O. Marcy, Massachusetts; W. O. Baldwin, Alabama; J. S. Billings, U. S. A.; T. W. Miller, U. S. Marine Hospital Service; Eugene Grissom, North Carolina; R. N. Todd, Indiana; to fill vacancy, E. W. Clark, Iowa.

Chairmen of the sections were announced as follows :

Practice of Medicine, J. V. Shoemaker, of Pennsylvania; Obstetrics and Gynæcology, T. A. Reamy, of Ohio; Surgery and Anatomy, Chas. T. Parks, of Illinois; Ophthalmology, J. J. Chisholm, of Baltimore; Diseases of Children, Wm. Lee, of Indiana; State Medicine, J. D. Roberts, of Tennessee; Aural Surgery, T. W. Brophy, of Illinois.

The Committee on State Medicine is composed of one member from each State, the names of whom were read. Also the Committee on Necrology, Dr. J. M. Toner, chairman, whose names were also read.

Dr. Gihon presented a statement that the report originating in a careless interpretation of his address on the first day before the Section on State Medicine, that he was opposed to the Code of Ethics, was entirely untrue, and that he was a strong adherent of the present Code, and should continue to be at all times. Received with much applause.

Dr. Didama, of New York, then presented the following:

My Dear Doctor: Circumstances rendering it necessary for me to return early to-day to New York, will you kindly express to our brethren, the members of the American Medical Association, with my sincere thanks, an assurance that I thoroughly appreciate the great honor which has been conferred.

I accept the honor, feeling assured that I may confidently expect co-operation and indulgence in my efforts to fulfill the duties which it involves. Yours very truly,

AUSTIN FLINT.

The Association then adjourned to 9 o'clock Friday.

Section on Practical Medicine met in the Opera House, Dr. Hollister in the chair; Dr. Lee, Secretary.

Three papers were read: "Elements of Prognosis and Therapeutics in Laryngeal Tuberculosis," by J. Solis Cohen, of Pennsylvania, which was illustrated by enlarged plates showing the condition of the throat in laryngeal tuberculosis, and tubercular deposit in the epiglottis.

The prognosis of each case, the author said, lies in its own history, and is less grave in some cases than others. The course of laryngeal tuberculosis may be retarded more or less by treatment. In incipient cases, now and then, the development of the disease might be retarded sufficiently to start the patient toward health again.

Dr. H. A. Martin gave a long and elaborate history of "Vaccination and the Propagation of Vaccine Virus." He claimed the honor of being the sole and only originator of the propagation of virus in this country.

A fine volunteer paper, by Dr. T. A. Keyt, of Ohio, on "The Condition of the Arteries in Valvular Insufficiency," received

the close attention of the section, and was briefly discussed and commended by Dr. Palmer, of Michigan, and others.

Section adjourned.

Section on Gynecology met at Frohsinn Hall, 2:30 p. m., Dr. Bartlett in the chair; Dr. J. F. Jelks, Acting Secretary.

Dr. Battey, of Georgia, not present; his paper on "Battey's Operation, Death from Ether," not read.

Dr. P. Zenner, of Ohio, read a paper on "Value of Gynecological Treatment in Hysteria and Allied Affections." The author took ground that Gynecological measures were too frequently resorted to in nervous diseases, and that it is time to recognize that such measures may do harm as well as good. Many cases occur where the cure of the uterine disease does not affect the nervous malady; also uterine disease may remain while the nervous affection is cured. However, the same soil favors development of both. The author strongly condemned the promiscuous examination of maidens or young married women, mainly because there are nervous symptoms. General treatment is of the utmost value in such cases. The hygienic education should be attended to from childhood up to womanhood in predisposed females, and the physician should point out to parents a system of education that will soundly develop both body and mind, and lead to habits of self-control and unselfishness, most especially at the period of puberty, by suggesting useful employment or earnest study. He should guard against means that heat a naturally fervid imagination, and above all endeavor to keep the mind from the genital function.

Dr. G. M. Maughs, of Missouri, read an interesting paper on the gynecology and midwifery of the ancients—a curious and interesting paper, which demonstrated that many of the rather advanced ideas of the present day were familiar to the physicians of the first century.

The Section on Ophthalmology, Otology and Laryngology met at the Board of Education chamber at 2:30 p. m., Dr. Chisholm in the chair. Dr. Carl Seiler, secretary.

Dr. Rumbold, of St. Louis, read a paper on the "Appearance of the Diseased Mucous Membrane of the Nose and Throat of

Adult Patients." Said the subject was too large for discussion, but his address would consist of remarks and hints upon the subject taken from an average history of an hundred cases—that the appearance of the pharynx of smokers was characteristic, and detailed the peculiar types and their probable prognosis as to length of treatment. He remarked it was not safe to take the patients' account of his symptoms. That Follicular inflammation does not need treatment, particularly as none of the symptoms are usually removed with them. Pharyngitis and laryngeal aphonia are frequently dependent upon irritation from inflamed nasal cavities, and are relieved accordingly.

In the discussion which followed, Dr. Seiler agreed partly in that there may be cases of aphonia relieved as above; the appearance of the pharynx he thought no indication of length of treatment required; did not agree with the author's description of inflamed throat; they usually vary more. He thought aphonia from laryngitis most frequent about puberty as hysterical paralysis, or about the time of change of voice in boys. He also disagreed as to the appearance of chronic smokers' throats. Thought cigarettes more irritating to the mucous membranes than the pipe or cigar; did not agree as to the harmlessness of the inflamed follicles; touching one of them will produce symptoms of violent congestion.

Dr. Rumbold remarked that probably not ten per cent. of the smokers in the room had white vocal cords.

A paper followed by Dr. J. J. Chisholm, entitled "Is Abcision a Proper Operation?" The paper considered the best mode of forming the stump for the artificial eye. Said that the stump left from abcision was extremely liable to ciliary irritation from the inclusion of the ends of the ciliary nerves in the cicatrix. Eye shells on stumps press on the whole length of the cicatrix, while in eyeless sockets they only impinge upon the tender surface at their periphery. Enucleation is one of the easiest of operations, abcision a most difficult one; injury to the ciliary body imminent and its immediate results incalculable.

Dr. Frothingham, of Michigan, agreed with the writer, and

urged the abandonment of abscision; he also dilated upon the imminence of subsequent inflammatory action. He mentioned the difficulty of retaining observation of the patients, who would frequently fail to return until in a hopeless condition. The stump was also a constant source of danger from deposit or morbid growth, and its retention was only a cosmetic effect after all.

Dr. Lundy, of Detroit, also agreed as to the experience. There was possibly a little better motion to the artificial eye, but the risks far overbalanced this slight advantage. He gave an instance of bone deposit in the ciliary body; also gave cases of sympathetic ophthalmia, in which hopeless blindness had followed abscision.

Dr. Thompson, of Indiana, mentioned the necessity for extreme care in rounding off the stump in abscision, so that no slight projection should be left to irritate. He had also had cases of pan-ophthalmitis following abscision, and had enucleated the eye in patients who had returned to light business on the second day.

Dr. Culbertson, of Ohio, was also in favor of the paper because of its thoroughness. He had never had an unfavorable result after abscision in thirty years' practice; did not know exactly why this was, but he never takes any stitches after abscision; leaves the eye then alone; the lens he allows to take care of itself. He had sometimes taken out the choroid and retina, and allowed the eye to take care of itself; this process results in not quite so large a stump, but, for practical purposes, one more useful. He thinks it a good plan to divide the tissues well back, as most of the sensitive parts are cut off.

The course of the discussion was still further in favor of enucleation and the abolition of abscision. The general opinion favored the axiom that a lost eye is a source of danger, and should be removed.

Dr. Cornwell, of Ohio, had removed the eye in several cases, together with the lachrymal gland, then stitched the ciliary margins of the lids together, closing the eye permanently, leaving drainage thread in the cavity till the small suppuration ceased.

The third paper by Dr. H. Culbertson, of Ohio, "A Form of Spectacles in lieu of Nose Pieces," demonstrated the use of extra semi-circular glasses, to be placed in a small frame in front and below the regular spectacles, to assist near vision. He claimed it was easy to prescribe them, and gave cases of astigmatic asthenopia and myopic astigmatism, which had been benefited by these glasses. Considerable skepticism as to the practicability of these glasses was manifested in the subsequent discussion, and it was generally esteemed unfortunate that the doctor should have lost the glasses after coming to Cleveland on the previous day.

Dr. Cornwell then read a volunteer paper detailing four interesting cases.

Dr. Seiler then presented a case of instruments in convenient shape for sudden night calls.

Dr. Turnbull read a letter from a patient concerning whose case his essay of the previous day was written.

Dr. A. C. Scott then read a letter from Dr. Calhoun, explaining his enforced absence as due to the severe illness of his wife.

Dr. Seiler then read the report of the committee on the publication of papers, the substance of which was that after careful consideration of the plan detailed in Vol. XXXIII. of the Transactions of the Association they had decided to recommend for publication only those papers read before this section by their authors.

Section then adjourned.

Section on Diseases of Children.—Met in council chamber at 2:30 p. m.

Interesting papers were read by Dr. H. N. Good, of Indiana, on "Dentition," which process he said was not a disease, but the affections accompanying it are many, from its irritation. Different susceptibility is a great factor in these affections. Reflex nervous irritability results in impaired digestion, in the evacuations from which are to be found myriads of bacteria, thus clearly tracing the cause of cholera-infantum. The thermal ranges are variously from 100 to 105°, pulse ranging in proportion. The author gave anodynes for the nervous disturbance and for the

indigestion pepsin and bismuth. In the discussion following nearly all endorsed the opinions of the essayist. Dr. Reed, of Ohio, would not endorse the bacteria theory, and claimed the nervous irritation caused the diarrhoea, and could be arrested by lancing the gums and confining the diet to milk.

Then followed a paper from Dr. J. B. Casebeer, of Indiana, which was transferred from the first day, entitled "Pædiatric Medication and its Relation to General Medicine." Proper dosing he esteemed the main consideration in infantile therapeutics—more science in fixing the dose than in prescribing the medicine. The dose should be as palatable as possible, to be taken without perturbation. Some discussion followed the paper, by Dr. Sinnot, of Ohio, and Dr. Ulrich, of Pennsylvania, who declaimed against the excessive dressing and feeding of the new born. Dr. Von Kline, of Ohio, also made remarks.

The last paper, on "Infantile Paralysis," by Dr. Teale, of Indiana, was volunteered, and quite interesting. The substance of the paper was that infantile paralysis was too often pronounced incurable and should be given more attention. Dr. Snow, of Michigan, said, in the discussion which followed, that there was danger to children in the excessive use of the bromides, and had seen paralysis following their use.

After further discussion of the relations of croup and diphtheria, resumed from the previous day, the section adjourned.

Section on State Medicine.—Met and gave the entire afternoon to discussion of the resolutions offered on Tuesday by Dr. A. L. Gihon, U. S. N., at the close of his address. Before moving the adoption of his resolutions Dr. Gihon explained his position toward the Code. He stated that he had signed it, believed in it, and should stand by it; was opposed to anything which came in conflict with it.

The resolutions, which provided for the dropping from the list of the profession of all unqualified and illiterate members, and the impropriety of association with such, were finally laid on the table, after much argument pro and con.

Dr. Billings seemed to voice the opinion of the majority, when he said "that there was no necessity for these resolutions; that

the Code says enough upon the subject, and that the general public is apt to jump to the conclusion that action of this kind is taken for the protection of those in the profession, to prevent other men from getting the fees. Action defining the qualifications necessary for physicians, organizing State Boards of Examiners should come from the people."

Dr. A. N Bell then offered a resolution urging upon the Association the importance of competent medical and sanitary service on ocean steamers.

Section adjourned *sine die*.

Surgical Section met at 2:30 P. M. in the Opera House, for the purpose of witnessing the "Illustration of Anatomical and Pathological Papers" by Dr. Alfred F. Holt, of Massachusetts, by the screen and oxy-hydrogen lantern. The exhibition was interesting, showing different pathological tissues and sections of the nervous system for inspection.

The section then repaired to Case Hall, where Dr. Verity, of Illinois, exhibited a convenient derrick for elevation of the subject in the application of the plaster jacket in spinal caries; also a complicated universal splint for suspension.

Dr. Wm. A. Byrd read a paper entitled "Excision of Both Hip Joints for Morbus Coxarius," and detailed an interesting case, in which the subject can now walk and attend school.

Dr. H. O. Marcy read a paper on "Surgical Treatment of Intestinal Obstructions," after which a discussion as to the use of the carbolic spray again arose. Dr. Gordon, of Maine, predicted that in a few years, physicians would be held criminally liable for the use of the carbolic spray.

Dr. Moon, of Kentucky, also opposed it.

Dr. Prewitt, of St. Louis, read a paper entitled "A Radical Cure for Ranula," in which he removes a section of the wall of the sac, causing its obliteration.

A paper on "The Early Use of the Trephine in Bone Affections," read by Dr. Ranzohoff of Ohio, attracted close attention, and met the approbation of several gentlemen who discussed the paper briefly. Dr. Gunn, of Illinois, had practiced the author's plan twenty-five years.

Dr. Reynolds, of Michigan, then read a paper on "Urethral Stricture," in which there was nothing particularly new.

Dr. J. H. Warren, of Massachusetts, read an interesting paper on the subject of "Tissue Repair, or Pathology of Subcutaneous Injection for the Cure of Hernia."

Two papers, one from Dr. C. H. Wilson, on "A Form of Inguinal Hernia Liable to be Overlooked," and one from Dr. C. F. Gay, on "Syphilitic Mammary Tumors," referred to the committee on publication.

Section then adjourned.

Dr. Peck was obliged to leave before adjournment, and the chair was filled by Dr. A. B. Watson, of New Jersey, to the close.

GENERAL SESSION—FOURTH DAY.

In Case Hall, 9:30 A. M. Friday. The attendance was perceptibly lighter, many members leaving on morning trains; quite a large number of ladies present.

Session opened with prayer by the Rev. Chas. Terry Collins, of Plymouth Church.

Dr. A. C. Miller, in the absence of Dr. X. C. Scott, Chairman of Committee of Arrangements, then announced the excursion in the afternoon to the country-seat of Mr. D. P. Eels—River Bank.

Dr. W. S. Smith, of Dakota, offered an amendment to the Constitution, providing for the admission of two delegates from the U. S. Indian Service, to be nominated by the Surgeon-General. Tabled.

Another amendment was introduced by Dr. Toner, of Washington, to the effect that the office of Permanent Secretary be abolished, and a secretary be nominated annually, who will serve without compensation, but was withdrawn in view of the change made in the duties of the Secretary, which enables him to serve without an honorarium.

An amendment offered by Dr. Sears, of Arkansas, toward the appointment of additional workers in the several sections, at the

discretion of the chairmen and secretaries of sections, and that the Librarian be made a permanent officer, tabled one year.

Dr. Davis, in behalf of the Judicial Council, announced that the petition of Dr. D. W. Joy would be returned to him, with leave to supplement said paper with a written statement of the character of the new evidence he wished to introduce, and that the Council declines to act until the opening of the session of next year, from the impossibility of notifying all the parties concerned.

Also, in the case of Dr. Goodwillie, of New York, that the Council decided that his registration be canceled, and his dues returned to him. This action taken on account of Dr. Goodwillie's connection with the New York State Medical Society, which is heretical in its adherence to a code different from that of this Association.

Dr. Pratt, of Michigan, introduced the resolution of Dr. A. N. Bell, from the Section on State Medicine, upon the subject of competent medical and sanitary service on board all our trans-oceanic vessels, and a committee on the subject, consisting of Drs. A. N. Bell, A. L. Gihon, J. N. Quimby and H. H. Smith, were instructed to procure legislation on the subject, and report at the next meeting.

Dr. A. N. Bell then introduced a motion, in view of the fact that a number of papers had been read out of their proper sections, that hereafter all papers, except the President's address and those of the Chairmen of Sections, should be presented to the Trustees of the journal for assignment to their proper sections.

Dr. Toner wished to amend the motion by referring the papers to the Committee of Arrangements instead.

Dr. Pratt thought many papers were presented which should never have seen daylight at all.

Dr. J. Solis Cohen opposed the resolution, on account of having lost a valuable paper some years since through sending it to the committee. The motion was tabled by vote.

Dr. Turnbull, of Philadelphia, offered a resolution that the respective State Legislatures be petitioned to pass laws requiring all railroad employés, before taking charge of trains, to be examined for hearing. Referred to the Section on Otology, to be laid over a year under the rules.

Drs. W. Brodie and H. T. Walker were appointed delegates to the Canadian Medical Association.

Dr. Keller offered the following : *Resolved*, That as in the near future cremation will become a sanitary necessity in large cities and populous districts of the country, that the question be referred to the section on Hygiene; carried.

Dr. Brodie offered resolutions of respect and appreciation of the life and labors of the late Surgeon General, J. K. Barnes. Dr. Blount, Chairman of the Section on diseases of children, who was obliged to leave early in the day, was allowed to submit his address without reading. Dr. Toner moved the thanks of the Association to the Secretary and Treasurer for the efficient manner in which they had performed their duties.

Dr. Quimby offered a resolution of thanks to the profession and citizens of Cleveland for their cordial and bountiful hospitality.

Dr. Garcelon, of Maine, offered the following : *Resolved*, That the thanks of the American Medical Association be extended to the retiring President, Dr. J. L. Atlee, for the able, dignified and satisfactory manner in which he has presided over the deliberations of the assembly, and that he retires with the best wishes of every member of this Association for a long continuance of a life so highly useful, not only to the present, but to all future generations.

The retiring President then invited the Vice-President elect upon the stage, and regretting the absence of the President elect, whom he eulogised as the Laennec of America, introduced the second Vice-President elect, Dr. Lester, of Kansas City, who took the chair and declared the Association adjourned to meet in Washington, D. C., on the first Tuesday in May, 1884.

At 2.45 p. m. the members of the Association and their ladies repaired to the N. Y. C. & St. L. Depot, where a comfortable train awaited their pleasure, and responded to the invitation of Mr. and Mrs. D. P. Eels to visit their elegant summer residence, River Bank, situated six miles west of the city in a beautiful grove on a bluff overlooking Lake Erie. Mr. and Mrs. Eels received their guests, assisted by Dr. and Mrs. G. C. E. Weber and a

few friends. Two pleasant hours were spent in social converse on the cool verandas or strolling about the grounds, enjoying the delightful contrast to the close confinement of the previous three days. The same train bore them back to the city, and by 9 p. m. very few members of the Association remained in Cleveland. The members were, without exception, highly pleased with the conduct and deportment of the meeting, unflagging interest being manifested from first to last. The attitude of the body with regard to the Code being dignified and unflinching, a disposition instantly manifest to resent any interference with any of its tenets in the least degree.

On Tuesday, one of the Ohio members, Dr. J. C. Hubbard, was fatally seized with apoplexy while enjoying the hospitality of Dr. G. C. E. Weber. The gentlemen were enjoying a cigar in the drawing room after dinner, when Dr. Hubbard suddenly sank to the floor and ceased to breath. Everything possible was done for the unfortunate doctor, but his heart ceased to beat in a few minutes. Dr. Hubbard lived in Ashtabula and was one of the most prominent physicians in Northern Ohio. He was sixty-four years of age.

On Tuesday night the profession of Cleveland entertained its visitors in superb style at the Euclid Avenue Opera House. The parquette being floored over from the stage to the dress circle, furnishing a commodious promenade. Here all were made welcome, the polished city Galen in his dress suit equally with the bucolic Esculapius in his less bending dignity.

Wednesday and Thursday evening a number of Cleveland's wealthiest citizens received the visitors at their homes and a detachment of the Profession of Cleveland were at each residence to introduce the strangers to their hosts.

ARTICLE XI.

CHICAGO MEDICAL SOCIETY.

The society held a regular meeting May 7, 1883, at the Grand Pacific Hotel. Dr. D. W. Graham presided. The minutes are

somewhat extensive, but the following embraces the principal portion of the report:

Drs. Robert Randall and James E. Henderson were elected to full membership by the secretary (upon vote) casting the affirmative vote of the society.

Dr. E. F. Ingals stated the salient points contained in his paper on "The Treatment of Empyema," read at the previous meeting. He thought a rubber tube introduced was sufficient for drainage purposes; that a double trocar should be used to perforate the walls of the chest.

Dr. J. A. Robinson inquired how he introduced the trocar, and before taking his seat, Dr. R. stated he thought there would be contraction of the ribs which would render it difficult to retain the drainage tubes *in situ*. He believed it was absolutely necessary to keep the pleural cavity washed out as clean as possible, for occlusion was apt to occur.

Dr. R. Park received a suggestion from Prof. Nussbaum that glycerine was the best remedy used to fill the cavity. He (Dr. Park) thought if such was the case, that boro-glycerine was a still better remedy to use in these cases, introduced through the drainage tube. He recited a case of destructive empyema, where the resection of three ribs was necessitated. The case progressed favorably for some time, until a further extended necrosis of the ribs occurred, and the patient died. He believed it was the universal opinion that it was necessary to keep the cavity well cleansed.

Dr. Ingals closed the discussion by answering Dr. Robinson's question relative to the introducing the trocar, saying that the perforation was done between the ribs; he had never yet wounded an artery, and the pleura would readily heal. He thought glycerine was an excellent remedy to use, especially in multilocular pleurisy. These cases nearly all die—however, a case of this kind may possibly recover. If occlusion was threatened early, keep in a silver canula to prevent it, but the drainage tubes of rubber are perfectly tight for ten or eleven days, before they are crowded out. He was sorry to say that it was not the unanimous opinion to keep the cavity washed out.

Dr. Frank S. Johnson exhibited Dr. Wm. P. Verity's new

derrick apparatus, and explained its mechanism and advantages in the treatment of spinal difficulties and applying plaster casts, compared with Prof. Lewis Sayres' method. Some of its advantages consisted in its cheapness and portability, and lightness in weight, doing away with all buckles, and strong, dark brown woolen cloths were substituted for leather, being equally as durable, and walnut, cedar or mahogany wood is used instead of the iron cross-bar above the head. A demonstration of lifting a boy sixteen years old, and suspending him a few moments, with no pain, proved the easy manner and facility with which it was accomplished, and mode of appliance in the treatment of curvatures of the spine.

Dr. Ephraim Ingals gave some observations on the published proceedings of the Illinois State Board of Health, regarding its meeting of April 12-14, 1883, in this city. Several sections of the report were read and elaborated upon, some of the remarks being as follows:

Relative to the Joplin Medical College, of Joplin, Mo., he had never heard of it before, but his recent researches informed him that there was a town in Missouri by that name, containing 7,000 inhabitants, and two medical colleges. He would not criticise the action of the Board in determining to recognize the diplomas of these colleges—and the same is true regarding the Indiana Eclectic Medical College, of Indianapolis—but in a town of the size of Joplin, he could not see how the colleges there were supplied with sufficient subjects for demonstrating purposes.

Regarding the 3,800 non-graduates in this State in 1879—the year the Medical Practice Act went into effect—who were practicing medicine, he thought 1,000 was nearer the number; while the State now contains about 650 non-graduates. Physicians are increasing in greater ratio than the population, and poor orthography in letter-writing, and illiteracy, were too prominent features in many of our recent graduates. He now desired to present for discussion the following resolution:

Resolved, That the public good would be promoted by the establishment of a State Board of Medical Examiners; such board to be entirely separate from and independent of all medical colleges, to have the exclusive right to grant license to practice

medicine in the State of Illinois, leaving to medical colleges their function of teaching and conferring degrees, but obliging all who in future desire to enter upon practice, and who have not already received license to do so, to go before such board to prove their fitness; and that said board be required carefully to examine all applicants as to their moral, literary and medical attainments, and only to confer a license on those who are well qualified in all these respects.

In presenting the resolution, the author of it said he never was clearly in favor of it, but had no doubt that its passage would be beneficial.

In the discussion, Dr. J. G. Kiernan said he had been a medical journalist for some time, and in that capacity was obliged to revise a large number of communications from physicians in New York, Philadelphia, and a few from Chicago. Many times the spelling was poor, and he gave an instance of how a New York graduate spelled the word emulsion. He thought students graduated too hurriedly, and he therefore favored the resolution.

Dr. J. H. Hollister stated that some phases of this subject had interested him for years. Improvement, however, is being advanced gradually in educating students. With reference to elevating a student's knowledge to a higher degree before entering college, he was personally interested, but thought there should be some common standard by which students in all the medical colleges in the State should be measured, and examined by several medical bodies. He thought an examining board might be selected from the Illinois State Medical Society that would satisfy the colleges, or examiners appointed by the Governor, even though it be centered in political interest, might form the best examining board; but the appointment should be given to those who are faithful to their profession, and their "standard of measurement" should be respected, and the appointees constituting this board should consider it an honor of great value. This doubtless would excel all others. The colleges, he thought, could with propriety delegate to this board what they should do, for it might be possible for a State Board to require strict junctures, so that students may become afraid to enter colleges here, and go to colleges in the cities of other States. He was aware that "phonetics" in

orthography prevailed to some extent, but even those who were thus deficient might be well posted, and competent to practice. He favored a resolution looking toward a common center by an individual board.

Dr. R. E. Starkweather spoke independently of any college and of the State Board, but thought 3,800 was virtually the correct number of non-graduates that were in the State in 1877. Thirty per cent. of this number have since attended medical colleges and received their diplomas. He used to be associated with the State Board, and had no doubt that 75 to 100 very badly spelled letters were in their possession, not unlike the one published in their proceedings of April 12.

He thought a doctor could not collect his fees (legally speaking) unless he had passed the examination of the State Board. We should all conform to the Medical Practice Act. He believed that preliminary examination of students should be carried out here—and elsewhere—by a State Board, and thought the colleges should graduate a less number than they do. Our colleges do not compare with some of those in Europe or Canada. He hoped this State would be the pioneer in the preliminary examination. We cannot have too few medical colleges. We should endorse the resolution, or encourage the State Board. Really, the latter body may not survive long, as the appropriations for defraying its expenses, according to newspaper reports, are liable to be cut short, or dispensed with entirely.

Dr. Kiernan said it was our duty to notify the State's Attorney and State Board of irregularities in the profession, that those doing so may be subject to penalty.

Dr. Simon Strausser related several amusing illustrations concerning M.D.'s. Among those cited was the following: His wife had a dressmaker who was rather bright. One day she bade them goodby, saying, "I am going to be a doctor." "Little over a year afterward, my wife and I received an invitation from the former dressmaker to go and see her graduate. We went, and sure enough, there she was, with a white rose in her ear, and she was given her diploma. I asked her if she had practiced dissections? She replied, 'Oh, we don't have dissections in our col-

lege.' However, a short time subsequently she married, as practice was not very good."

Two years ago, a man came to him and asked to enter into partnership, saying that he had been associated with a regular physician as salesman, and received half the profits derived from selling a patent medicine. Dr. Strausser denounced him, and last year this same man was made a full-fledged physician by securing a diploma from a college. The new doctor remarked that his diploma was paid for, too. Other cases were cited, showing how easy it was to enter the medical profession by securing a diploma.

So far as the State Board was concerned, he endorsed it, and thought a higher standard than the present one should be established.

Dr. C. W. Purdy, graduate of the Queen's University, Ontario, Canada, spoke of the merits a man must possess before graduating there. Each Territorial Division in Canada has a man who constitutes a medical council, that appoints an examining medical board. A student passes this board before entering a medical college in Ontario, and there is obliged to study four (4) years before graduating. This was not the case in America. He favored a higher degree of literary attainment, also the State Board or this resolution.

Dr. R. Park spoke on the legal status of the subject, and said every physician should become a licentiate, as he doubted if a physician could collect a bill in this city or State, unless licensed by the State Board to practice. The colleges were not thorough enough here. He thinks it requires ten years' study in Sweden before a student may graduate there. He doubted if our State would ever support a medical department to a university, and thought that the State Board should be sustained. He had heard the remedy Tarran's "Excelsior Aperient" pronounced in this hall, by practical medical men, showing how unfamiliar they were with one of the simplest remedies.

Dr. G. C. Paoli had practiced in Copenhagen before coming to this country some thirty-four years ago. The venerable doctor said that many years ago a student there had to pass several de-

grees before graduating. Our colleges here were not particular enough, and sent out too many graduates in too short a time.

Dr. Kiernan moved that the resolution be laid on the table temporarily, not seconded.

Dr. J. H. Etheridge said the resolution was not properly before the society, as it had not been seconded, and the discussion so far was not pertinent to it, and was a criticism on the State Board of Health.

Dr. Starkweather arose to second the resolution, and Dr. Ingals answered some minor points not stated herein, when a vote was taken on passing the resolution, which was unanimously carried and adopted.

Dr. Ingals also offered the following:

Resolved, That a committee of three be appointed by the chair to represent the Chicago Medical Society, and that they be instructed to confer with the Illinois State Board of Health, relating to statements contained in the proceedings of its last meeting, and that this society respectfully requests said board to communicate to our committee any facts in the possession of the board that will enable the committee to prepare its report for the society.

Dr. E. H. Thurston thought this resolution should also pass—he would endorse it.

Dr. Starkweather seconded this second resolution just read by the venerable doctor, and upon vote, it too was unanimously adopted, showing how well indeed their value and merits were appreciated.

The chair announced that he would name the committee at the next meeting.

The following additional delegates to the State Society were appointed: Drs. S. J. Jones; J. H. Hollister; N. S. Davis; R. Park; D. W. Graham; J. E. Best; A. H. Foster; Edmund Andrews; A. R. Reynolds; L. H. Montgomery.

Thirty-five members and three visitors were present. Adjourned for two weeks

Among the 35 members present were Graham, Holmes, Bogue, Hollister, Etheridge, E. Ingals, E. F. Ingals, Strausser, Allport, Jones, Robison, Bidwell, Starkweather, Kiernan, Ran-

dall, Todd, Stevenson, D. H. Montgomery, Quine, Coey, Walton, Reynolds, Paoli, Purdy, Gray, D. M. Tucker, Lagorio, F. S. Johnson, Thurston, W. H. Curtis, Goldspohn, Park, and three others.

Visitors, C. G. Wheeler and two others.

L. H. MONTGOMERY, *Secretary*.

THE CHICAGO MEDICAL SOCIETY.

This society held its regular bi-monthly meeting May 21st, with Dr. D. W. Graham in the President's chair.

Several new petitions for membership were read, and Dr. Homer M. Thomas was unanimously elected a member of the society.

Dr. John E. Owens read a valuable and condensed report on "Recent Research in Operative Surgery." The first case cited was "Nephrectomy for Scrofulous Kidney." The history—the emaciated and general cachectic condition of the patient, combined with pyuria, and other circumscribed symptoms,—pointed to a scrofulous pyelitis of the right side. Medicines in these cases are inefficient. Soon after the operation, extreme collapse supervened, from which the patient never rallied. In this case a portion of the twelfth rib was excised. This class of cases requires close study in order to determine if by operation the whole disease can be removed, and the relative merits of nephrotomy and nephrectomy, or if merely incising the kidney will give a chance for life. (This case was first read at a meeting of the Clinical Society, of London).

Digital Exploration of the Bladder through incision of the Urethra from the Perinæum.—This median operation has excited much interest, and when the exploration is made the bladder must be empty, then by concerted movements of supra-pubic pressure with the right hand, and slight movements of the left index in the bladder, almost every portion of the internal coat of the bladder may be brought under examination. (A case is reported in the London *Lancet*, June, 1882) where a fibrous tumor

the size of a chestnut, coated with phosphatic matter, was diagnosed by digital exploration, and removed with a small pair of forceps, followed by rapid recovery. The procedure of Sir Henry Thompson is not a cystotomy, as the incision is only made into the urethra and a very little way into the prostate.

Colectomy (a short and available designation applicable to the cutting out, resection or excision of any part of the colon, thus distinguishing it from colotomy).—The subject of the clinical lecture from which this extract is taken was a case of chronic intestinal obstruction, the seat and cause of which could not be ascertained, but which was discovered on median abdominal section to be due to a circumscribed cylindrical growth, situated in the descending colon. (Case reported by Dr. Jas. Marshall, London *Lancet*, July, 1882.) An inch of the intestine was removed, together with the growth, but the patient only lived about two and a half days. The autopsy revealed diffuse peritonitis, starting from the lumbar wound. Very few cases of alleged attempted or complete colectomy for cancer of the large intestine are recorded. Of seven cases reported, from which we quote, four may claim to have prolonged life many months, while of the three remaining, they each proved fatal in fifteen hours to seven days. A single abdominal incision is an element of success in this operation.

Wounds of the Heart.—Black has recently maintained that wounds of the heart should receive surgical treatment. He pointed out, at the German Surgical Society, that death from wounds of the heart is usually due to asphyxia, in consequence of (London *Lancet*, March 10, 1883) hæmorrhage into the pericardium, to loss of blood, to damage to the motor ganglia of the heart, or to obliteration of the coronary artery. Hesitation in opening the thoracic cavity leads the surgeon to allow the patient to die from asphyxia, when he might be saved by a single incision into the pericardium. He experimented on four dogs where the pleural cavities, the pericardium and apex of the heart were opened for a short time, and all survived. [Wounds of the heart are fatal in so short a space of time that death results before the arrival of a surgeon to operate in the method suggested in the paper.—L. H. M.]

The Removal of a Tumor from the Anterior Mediastinum.—

The report of this case was first read at a meeting of the Berlin Medical Society by Dr. Küster. The growth occurred in a healthy-looking, robust man, aged thirty years. He denied syphilitic infection, and there was no evidence of the disease. The tumor projected forward from the right side of the sternum, and adhered to the right border of this bone, involved the third and fourth costal cartilages, and dipped into the chest between them. Negative results followed the administration of iodide of potassium, and the tumor was diagnosed to be sarcoma. In detaching the deeper part, the internal mammary artery was cut, a small aperture was made in the pleural sac, and the lung was seen to collapse immediately. It had also to be detached from the pericardium, under proper antiseptic dressings. The patient made a good recovery, without lung complication. This patient was operated upon Feby. 26, 1882, and exhibited to the Berlin Medical Society in December of the same year. The tumor was found to be a gumma, and the error in diagnosis was admitted.

König's case of excision of an osteo-chondromatous tumor of the sternum, in which both pleural sacs and the pericardium were opened, and the two internal mammary arteries were divided, was referred to. The patient, a woman aged 36 years, recovered. These cases are triumphs of operative skill, and certainly at no time has surgery been so aggressive as at the present.

Transpatellar Excision of the Knee.—The patient was a lad 13 years of age, who had articular ostitis of the right knee, and excision was decided on (first reported by Mr. Golding Bird at the Clinical Society of London) in this manner: A transverse cut was made across the middle of the patella, which was sawn in two, the two fragments, with the soft parts, being turned up and down. The excision was then completed as usual. Primary union was obtained.

The Cure of Abscess about the Neck without Cicatrix or other Deformity.—Dr. Quinlan, of Dublin, recommends the following method: A thin curved needle is armed with silver wire and passed deeply into the swelling, from above downwards, so as to admit of drainage. The ends of the wire are tied together on the outside of the skin, and the part covered with lint wet in alcohol.

This should remain until the abscess is entirely drained. From first to last, fomentations and poultices are interdicted.

A new method of reducing dislocations of the humerus was described, in which the operator used either of the great trochanters as a fulcrum, and the patient placed as close as possible to the edge of the couch, on his back, while the surgeon rotates his body, and has hold of the patient's arm. It is then swung in its proper place.

A New Method of Curing Hydrocele.—Consists in the introduction of a bougie into the sac, after the latter has been punctured and evacuated in the usual manner, and left remaining from one to twenty-four hours, has been successfully tried in two hundred and fifty cases.

Removal of the Uterus with both Ovaries, for Procidencia, when the womb extended to the knees, with recovery of the patient, concludes the report. This latter operation is certainly a great one; was performed by Dr. Owens, colleague of the committee.

In the discussion, Dr. G. C. Paoli recited a case of wound of the heart where the patient lived several days, and then died of a complication. He thought it possible that these cases should not all absolutely prove fatal.

Dr. Owens did not think using a bougie as described in the paper a good method to cure hydrocele. He used tr. iodine (warmed) by injecting two or three drachms in the sac and leaving it remain there. It is not necessary to give an anæsthetic to do so. However, to make an incision into the sac and introduce a bougie, would cure these cases, but he did not think it the preferable way. Regarding nephrectomy, he endorsed it, in certain cases, which are, however, rare.

Dr. H. A. Johnson offered the following preamble and resolutions, seconded by Dr. Owens, which were unanimously carried and adopted:

WHEREAS, The library collected under the direction of the Surgeon-General of the U. S. A. is of great value, and is accessible to the profession for study and reference, and

WHEREAS, Provision for the care and direct completion of the index catalogue is of the greatest importance, therefore

Resolved, That Congress be requested to provide a suitable building for the safe keeping of the collection, and to make provision adequate for its maintenance, and for the completion of the catalogue.

Resolved, That, in the judgment of this society, the amount for the maintenance of the library alone should not be less than \$10,000 annually.

Resolved, That Congress be asked to provide a commodious fire-proof building for this library and the Army Medical Museum.

Dr. Johnson spoke of the accessibility and great value of this library and museum, and the "Index Medicus" to be used, as it will be the largest medical collection in the world, and no charge will be made to physicians to have access to it. Physicians here can obtain any volume through the librarian of our public library by paying expressage to and from Washington. Senator Logan is Chairman of the Committee in the Senate looking to this object.

Dr. Johnson moved that the secretary send printed copies of the resolutions to Senator Logan and the Surgeon-General, or that a committee be appointed by the chair to take charge of the resolutions, and appeal to Congress to urge their adoption.

The latter motion was seconded by Dr. Owens, and carried. Another motion, by Dr. Johnson, was seconded—that Dr. D. W. Graham should be appointed in his place on the committee from this society to act with the committee from the State Microscopical Society to welcome the National Society of Microscopists to this city in August. Drs. Wm. T. Belfield and J. E. Owens were also added to the committee.

The society then adjourned.

ARTICLE XII.

CHICAGO PATHOLOGICAL SOCIETY. Annual Meeting.

The society was called to order by the President, Dr. Lyman. It being the annual meeting, the first business of the evening was the election of officers for the ensuing year.

According to former custom of the society, an informal ballot was taken for president. Dr. Lyman having received twelve votes, the whole number, was unanimously elected. He, however, declined to serve, believing that rotation was the only way to prevent stagnation and loss of usefulness. He, however, offered the society his parlors for meeting, should no more central location present. On formal ballot, Dr. J. J. M. Angear received a majority of the votes, and his election was made unanimous by a *viva voce* vote. Dr. D. R. Brower was elected Vice-President, Dr. J. H. Tebbetts Sec'y and Treas. Censors, Dr. Wm. A. Walker and A. Lagorio.

Dr. Angear was then conducted to the chair, thanking the society for the honor it had conferred upon him, a comparative stranger to most of the members. He considered pathology as the foundation of practice; irregular physicians are never pathologists, or get up works on pathology. Pathology rests on anatomy, physiology and chemistry, and our practice consists in the application of these principles, on the laws of common sense.

Dr. Lyman rose to express his gratification at the present condition of the society, and suggested that, if possible, a permanent home be sought, at reasonable expense, where the society can cultivate its desire for pathological objects of interest and secure a cabinet of specimens. Dr. Lyman then moved that the officers of the society be appointed a committee to secure rooms in the neighborhood of the County Hospital, if the location be deemed sufficiently central. Carried.

In concluding, he repeated his kind offer, the use of his parlors for another year, if no better location present.

It was then moved by Dr. Bishop, after remarking the kind hospitality of Dr. Lyman, and his exertions, to which mainly the society owes its present flourishing condition, that a vote of thanks be tendered the retiring president for use of his parlors.

Unanimously carried.

The Secretary was then called on to make the Annual Report, which was read and approved, said report being ordered offered for publication in some journal, to exhibit our work and ambitions, and enlist the interest of those not yet members.

The Treasurer's Report was as follows :

DR.

April 25, 1882, to April 9, 1883 :

To annual dues collected.....\$29 00

CR.

By bills paid, printing, stationery, etc.....\$24 02

By cash on hand..... 4 98

\$29 00

The following named gentlemen and ladies were proposed for membership :

Dr. C. A. Sanders, by Drs. Lyman and Dobbin.

Dr. Isabell R. Copp, by Drs. Mergler and Lyman.

Dr. W. A. Synon, by Drs. Bridge and Lyman.

Dr. Curtis was elected to membership.

Dr. G. Frank Lydston, before reading his paper, exhibited to the society an elixir of salicylate of iron, prepared by his brother, a pharmacist, from salicylic acid and tinct. ferri chloride. The qualities are antipyretic and antiseptic, and the preparation may be employed in all septic affections, in many cases as a substitute for quinia; unlike tinct. ferri [chlorid., it does not check the secretions. In doses of 3 ss it does not irritate the stomach, nor damage enamel of teeth, but is said, on authority of Drs. Brophy and Talbot, to act as a preservative, preventing fermentative action.

In his paper entitled "The Treatment of Varicocele," Dr. Lydston stated that, although not an uncommon affection, the annoyance was so great and the many forms of palliative treatment so worthless in checking growth and removing deformity, that some more effectual means of relief, if not cure, was much sought and very desirable. The indications for the operation are the real danger to life from hæmatocele, the great dospondency of patient, etc. The popular idea that fatal hæmorrhage may occur in the operation, and the large number who are treated by the various instrument makers, keep many interesting cases from ever being treated by the surgeon.

The various older methods of operation were then enumerated, and some of their imperfections touched upon.

We should seek a safe operation, although patient may have to retain the suspensory bandage, to complete the cure. The method more nearly followed by the author of the paper, was a modification, by Henry, of Sir Astley Cooper's operation, although not using same construction of clamp.

The sutures employed were "figure of eight" with chromated gut ligatures and silver pins—also used by Henry. The adhesive straps can best be dispensed with at first dressing, but advantageously used in granulating stage.

Oakum compresses, covered with borated cotton, are to be used, the edges of the parts dusted with iodoform, and a decalcified bone drainage tube inserted at most dependent portion.

In dressing the parts, he uses a hot sat. sol. of boracic acid, after the late Warren Greene. In healing, a first intention will often occur, but a granulating union is really preferable, as the thicker cicatrix forms a more solid and firm support.

A specimen of a scrotum removed in a case was then exhibited, in which the redundancy was enormous.

Five cases were then detailed, of which case V was perhaps the most interesting.

A hospital case—the man possessed the hæmorrhagic diathesis, and had, naturally, great fear of operation. Varicocele of left side, and of long standing. The usual symptoms, somewhat relieved by palliative treatment. Carbolized silk was used in absence of chromated gut, 5 pins, and other usual dressings. Union occurred by first intention; bleeding, however occurred on the third day, and wound had to be opened, clots exposed and turned out, when hæmorrhage checked without further trouble. Discharged from hospital in twenty days, cured. The after-treatment is always important, consisting of a good suspensory bandage, baths, laxatives, faradic current—all aid in restoring resiliency and tone to venous walls. The best bandage is, perhaps, the "U. S. Army and Navy," as it has a small pouch and is non-elastic, supporting the scrotum in lifting and walking.

In the subsequent discussion of the paper by the society, Dr. Lagorio mentioned a case, caused by masturbation, and treated

by a bandage, potassum bromide, and moral suasion, in which a complete cure resulted. Hence the Doctor would, in recent cases, urge postponement of operation.

Thought many young men are troubled with slight varicocle, which might create considerable disturbance until the irritating cause be removed by marriage.

Dr. Bucher would inquire if horseback riding did not conduce to varicocele, as U. S. Government, during the Rebellion, had issued suspensory bandages to about one out of six horsemen, and every case was thus cured without operation. Thought a properly constructed saddle did not produce the trouble—for example, the McClellan and Mexican, which have an open “tree.”

It was then moved and carried that a vote of thanks of the society be tendered Dr. Lydston, and his paper offered for publication.

The President suggested that the papers of the year be collected and published annually in pamphlet form.

Dr. Lyman suggested that if all papers could be published in one journal, a file of said journal would be our best collection of papers, and therefore moved that the CHICAGO MEDICAL JOURNAL AND EXAMINER be considered the medium of the society.

Unanimously carried.

Members present: Drs. Angear, Bishop, Bucher, Camp, Dobbin, Lagorio, Lydston, Lyman, Tagert, Treat, Tebbetts, Walker, and two visitors.

The society, on motion, adjourned.

J. H. TEBBETTS, Secretary.

ARTICLE XIII.

CHICAGO PATHOLOGICAL SOCIETY.—SECRETARY'S REPORT.

MEETINGS.—The first meeting of the year, the annual meeting, was held May 1, 1882, and the last April 9, 1883. The whole number of meetings during the year was ten. Two meetings were without a quorum, owing to meetings of other societies on the same evening.

MEMBERSHIP.—One hundred and twenty-four members have attended during the year; an average of about twelve at each meeting.

NEW MEMBERS.—Sixteen gentlemen and ladies were proposed for membership during the year, all of whom were unanimously elected, making the total membership at the end of the year one hundred and two.

POSTALS.—There have been printed and mailed to members 946 postal cards, giving time and place of meeting and order of exercises.

WORK OF THE YEAR.—The following literary and scientific work has been accomplished by the society during the year:

Nine papers; six detailed reports of particularly interesting cases; two exhibitions of microscopical preparations; one announced discussion;—and were entitled as follows:

1. Paper.—Dr. John A. Robinson. "Medical Geography of California."
2. Verbal Report.—Dr. G. S. Campbell. "Northern Rocky Mountain Country."
3. Paper.—Dr. E. P. Davis. "Nerve Stretching."
4. Paper.—Dr. G. Frank Lydston. "Treatment of Erysipelas."
5. Paper.—Dr. H. D. Valin. "Sunstroke."
6. Case Report.—Dr. Joseph Haran. "Hypertrophy of Heart," with specimen.
7. Case Report.—Dr. Odelia Blinn. "Post-partum Hæmorrhage."
8. Paper.—Dr. C. W. Earle. "Cirrhosis of Pancreas."
9. Paper.—Dr. Adelia Barlow. "Tetanus."
10. Case Report.—Dr. H. M. Lyman. "Locomotor Ataxia, treated by dry cupping."
11. Exhibition of Microscopical Specimens.—Dr. Belfield. "Bacillus of Tuberculosis."
12. Case Report.—Dr. J. H. Tebbetts. "Cancer of Stomach." Scirrhus, with specimens.
13. Paper.—Dr. H. M. Lyman. "Sleep and its Disorders; Hypnotism, Somnambulism, etc."
14. Case Reports.—Dr. G. F. Lydston. Two cases.

15. Exhibition, Microscopical Specimens.—Dr. W. T. Bel-field. "Cultivation Anthrax Bacilli in Gelatine."

16. Paper.—Dr. G. Frank Lydston. "A Contribution to the Hereditary and Pathological Aspects of Crime."

16. Paper.—Dr. A. Lagorio. "The Hypodermic Treatment of Syphilis."

18. Paper.—Dr. G. F. Lydston. "The Treatment of Bubo."

19. Discussion.—"Rheumatism," opened by Dr. C. J. Lewis.

At the September meeting, the society learned of the recent sad bereavement of the secretary, Dr. R. S. Hall, whose resignation was received and accepted at that time. Resolutions of sympathy were passed by the society. At this meeting, the present secretary was elected to serve the remainder of the year.

RESIGNATIONS.—But one member has resigned from membership—Dr. E. Ingals.

SUGGESTIONS.—It would perhaps be a good idea to have our list of members revised and printed in pamphlet form, together with our Constitution. The expense would be slight, and the benefit considerable.

In conclusion, we cannot but note the continued progress and prosperous condition of our Pathological Society; and as our membership increases, our work will of necessity limit itself, perhaps, more closely to pathological work, but at present, we have reason for satisfaction with our year's work and progress.

Respectfully submitted,

J. H. TEBBETTS, *Secretary*.

ARTICLE XIV.

ALUMNI MEDICAL ASSOCIATION OF CHICAGO MEDICAL COLLEGE.

THE Alumni Medical Association of the Chicago Medical College held their annual meeting at 10 o'clock A. M. of March 27, 1888, Dr. M. P. Hatfield, the President in the chair. The necrologist reported upon the death of the following members:

Craft Green, class of 1882; Geo. H. Wright, 1879; Green B.

Hoblit, 1869; Chas. Ashworth, 1869; Gordon M. Conville, 1868; E. C. Dickenson, 1860; J. D. Hogan, 1876; J. L. Quirk, 1867; Clarence J. Rivenberg, 1878; Isaiah W. Grist, 1871; C. T. Listenberg, 1873; Wm. T. Howard, 1876; Wm. E. Gallop, 1880.

H. M. Scudder, M.D., D.D., delivered a very instructive address on "The State of Medical Science in India."

The following prizes were presented by Rev. D. Arthur Edwards, of the *Northwestern Christian Advocate*, for the Association:

Alumni Prize of fifty dollars, for the highest average scholarship during three years' attendance at the college—taken by N. S. Davis, Jr.

Edward's Prize, set of Wood's library, for best scholarship during prior and middle years—taken by A. C. Helm.

Lena Prize, two volumes on surgical subjects, for best anatomical preparation—taken by Stanley P. Black, class of 1883.

President's Prize, two volumes on "Diseases of Children"—divided between Wm. H. Graves and Jas. Miller.

Faculty Prizes, for best and second best graduating theses:

1st. Lusk's "Science and art of Midwifery," to N. S. Davis, Jr.

2nd. "Hyde on Diseases of the Skin," to W. E. Burbank.

Honorable mention: G. W. Post, O. L. Schmidt, G. A. Wells, E. G. Epler, Jas. E. Henderson.

Shafer Prizes:

1st. For best scholarship in anatomy in junior class, gold medal—to Theo. H. Swain.

2nd. For best scholarship in anatomy, in the middle class, a volume of medicine—to Wm. Elliotte.

3rd. For best competitive examination in anatomy, "Quain's Dictionary of Medicine," and the Prosectorship—to H. R. Frothingham.

Dudley Prizes—six cases of instruments—for the six best reports of lectures on gynæcology—to J. E. Henderson, Geo. W. Post, J. F. McAuley, Frank P. Peck, E. G. Epler and Chas. Davison.

The following list of officers was elected for the ensuing year :

President, D. A. Sheffield, of Apple River.

1st Vice-Pres., A. H. Burr, Chicago.

2nd Vice-Pres., N. S. Davis, Jr., Chicago.

Necrologist, F. E. Waxham, Chicago.

Secretary and Treasurer, H. T. Byford, Chicago.

The following committees were appointed :

On Library—M. P. Hatfield, E. Wyllys Andrews, and the acting Secretary.

To coöperate with the officers of the association in making preparations for the quarter-centennial celebration of the foundation of the college, next year—M. P. Hatfield, E. J. Doering, and F. Billings.

To report on the suggestions contained in the President's address, and upon a life-membership fee—Roswell Park, E. J. Doering, and D. A. K. Steele.

Reviews and Book Notices.

ARTICLE XV.—PAY HOSPITALS AND PAYING WARDS THROUGHOUT THE WORLD. BY HENRY C. BURDETT, Condon. Presley Blakiston, Philadelphia, 1880.

The author is evidently familiar with hospital management, and in his little volume has given a succinct account of the origin and growth of the hospital system ; has enlightened us as to the pay hospitals of France, Switzerland, Germany, Austria, Spain, Italy, Sweden, Norway, Canada, Ireland, England, and finally our own country. He delineates well, and satisfactorily accounts for the abuses of hospitals, and claims that the only proper kind of a hospital is a pay hospital. He also very properly sets forth the advantages to be derived by both the laity and medical profession in the establishing of convalescent hospitals.

J. A. R.

Editorial.

THE EDITORIAL MANAGEMENT OF THIS JOURNAL.

When the names of the editors of this journal were, in January last, removed from its title-page and cover, it was announced that its editorial conduct would be hereafter strictly impersonal. This was an end to which, for some years past, the efforts of a small number of those interested in the success of the Medical Press Association, had been directed.

As a consequence, the last changes in the editorial staff were not published, and no such changes, should such occur, will be so announced hereafter. It has, however, appeared necessary to make at this time the statement that Dr. N. S. Davis, for some years associated with the management of this journal, retired from his connection with it last year, and, as a matter of fact, has not been responsible for any of its utterances since last December. The announcement of this fact is rendered necessary by the circumstance that many of our correspondents are still under the impression that Dr. Davis retains his connection with this journal, and are sending him communications and letters which should be addressed to *The Chicago Medical Press Association*, No. 188 South Clark Street.

In parting with the veteran journalist, clinician and physician, whose name has been for so many years associated in Chicago with its best medical activities of every kind, it need scarcely be said that his editorial *confrères*, bid him farewell with an unfeigned regret. Their intercourse, from the first day to the last, has been characterized by a mutual cordiality, and, on his part, by the utmost kindness and courtesy.

As he enters upon his new, and, we trust, broader field of

journalistic labor, we extend to him our best wishes for his personal success and for the welfare of the periodical with which he is to be identified. If we shall ever be called upon to cross swords with him, in the generous warfare of public controversy on medical themes, we are sure that he will thrust and parry with no less fairness and conviction of the right, than that he has displayed from the first in the years during which he has been in the front of our ranks.

The anonymous editorial staff of this journal, in making this announcement, have thus no appeal to make for themselves either to the good will or the forbearance of its readers in particular, and the medical world in general. The fact is, that this journal stands no longer on the good will or forbearance extended to any one man or set of men. The JOURNAL stands on its own merits, and on these alone. If it is worthy of favor, it will, in the struggle where the fittest survive, accomplish its ends. If it cannot support itself in that struggle, it will go down; and what is more, it will deserve to go down. Just at present, it is not preparing for its latter end. Its bank balance is in the most satisfactory condition. It will be noticed that it is not frantically calling on its subscribers to pay up their arrears—a noteworthy symptom of dissolution in the weaker class of provincial papers, whether medical or political. As it publishes this four hundred and sixty-second number of its forty-sixth volume, conscious of the fact that it has survived its second dentition, and even passed its puberal epoch, it is not without a desire to prolong its days further, and to yet prove of usefulness in its day and generation. It is possessed of a keen sense of its possibilities in the future. It has been a sad and silent mourner at the funerals of not a few medical enterprises in journalism, whose earliest outgivings were rich in a promise of maturity. It has with greater delight watched the growth of several modest literary ventures in medicine, which now are its flourishing contemporaries. It has been the pleased or unwilling foster-parent of a nursery full of smaller sheets in this city and elsewhere.

On the whole, it has concluded to live for a while longer, and thus please its friends, if it has any, and disappoint its enemies, if there are such. The promise and potency of "matter" (in

the typographical sense), is for it not without a confessed charm.

Know all men, therefore, to whom these presents shall come, that the CHICAGO MEDICAL JOURNAL AND EXAMINER proposes to continue business at the old stand, and respectfully solicits a continuance of the patronage which has actually begotten that sense of gratitude well defined as an ardent appreciation of favors to be bestowed in the future. "*Sint Maecenates, non deerunt, Flacce, Marones.*" (Martialis, Epigr. 3, viii., § 6.)

A MAN named Fulton, living among the Shuarkas in New Caladonia, left the tribe, and when two men were dispatched to get him back he shot both dead. The tribe being very mad about this affair they captured the man and—ate him; but every one of the Shuarkas who partook of the delicious meal died under symptoms of poisoning, the man having been syphilitic. The editor of the *Australasian Journal* is responsible for the truth of this story.

THE name of Professor DeLaskie Miller was accidentally left out of the Rush College advertisement in the June issue of the JOURNAL AND EXAMINER. The accident was not discovered until the entire edition had been mailed. He leaves the city in a few weeks for a trip to Europe.

Dr. W. T. BELFIELD has been appointed one of the attending surgeons of the Central Free Dispensary, in the department of genito-urinary diseases.

THE practitioners' courses in the several medical schools have been concluded, and those in attendance have for the most part left the city.

DR. H. P. MERRIMAN, of Chicago, has been elected Lecturer on Gynæcology in the spring course at Rush College.

The new pavilions of the Cook County Hospital are rapidly approaching completion.

Items.

DR. S. V. CLEVENGER, of Chicago, has been appointed Pathologist to Cook County Hospital for the Insane, near this city.

The doctor has been a laborious worker in the neurological and psychiatric field for many years past, and has been well known as a contributor to these pages. He now abandons the practice of medicine, and enjoys the long coveted opportunity of devoting his inquiries exclusively to the study of pathology of the nervous system. We shall often hear from him in his new field of labor.

Subjoined is a list of his contributions to scientific literature in the past. We publish it that it may be more generally known with what ripe experience and training this newly appointed pathologist enters upon a career where he will have such large opportunities. We unite with his many friends in wishing that, with these, he may accomplish a still more brilliant future.

1. Engineering Instruments of Aluminum. Published in *Van Nostrand's Engineering Magazine*, February, 1874. The use of this metal was suggested in the manufacture of all instruments where bulkiness and lightness were *desiderata*.

2. Construction of a New Mean Noon Sun Dial. *Engineering Magazine*, July, 1874.

Describing an invention of the doctor's, by means of which clock time could be obtained by simple inspection, the dial being self-equating.

3. American Cartography. *Engineering Magazine*, May, 1875.

A description of the sources of information resorted to by map-compilers in America.

4. A Treatise on the Methods of U. S. Land Surveying,

pp. 200. D. Van Nostrand, New York, Publisher. 1874. Three Editions.

A practical application of astronomy and mathematics.

5. Therapeutic Action of Mercury. Read before the Chicago Biological Society, February 4, 1880. *Chicago Medical Gazette* (Review) Feb. 20, 1880.

6. Mechanical Therapeutics, Chemistry, and Toxicology of Mercury. CHICAGO MEDICAL JOURNAL AND EXAMINER, April, 1880.

7. Examination of Tissues after the Administration of Mercury. Read before the Illinois State Microscopical Society, February 27, 1880. *American Journal of Microscopy*, June and July, 1880.

The foregoing papers embody experiments to sustain Dr. Clevenger's theory that all mercurials act mechanically in a state of extremely minute division in the histological channels of the body.

8. Cerebral Topography. *Journal of Nervous and Mental Disease*, October, 1879.

The nomenclature of portions of the brain in Greek, Latin, German, English, French and Italian, with a description of researches into cerebral functions.

9. The Sulcus of Rolando, as an Index to the Intelligence of Animals. *Journal of Nervous and Mental Disease*, April, 1880.

Comparisons of the position of this fissure in the brains of many animals, with the suggestion that it forms a good posterior boundary for the frontal lobe, and that in an ascending scale of intelligence the fissure advances backward.

10. Guide to Post-Mortem Examinations of the Brain. *Chicago Medical Gazette* (Review), March, 1880.

11. Laceration of the Cervix Uteri a Probable Cause of Recurring Abortions. *Gazette*, Jan. 20, 1880.

12. Reports of Cases. *Gazette*, June 5, 1880.

13. *Chicago Medical Gazette* Editorials during 1880.

14. *Chicago Druggist* Editorials during 1881.

15. Book Reviews, *Journal of Nervous and Mental Disease*: Benedikt, Brains of Criminals, Jan. 1880; Richet and Pansch

on the Brain, Oct. 1879; Bastian, The Brain as an Organ of the Mind, Jan. 1881.

16. Plan of the Cerebro-Spinal Nervous System. Read before the American Association for the Advancement of Science, Boston, Mass., Aug. 28, 1880. *Journal of Nervous and Mental Disease*, October, 1880.

17. Comparative Neurology. *American Naturalist*, January and February, 1881.

18. Origin and Descent of the Human Brain. Read before the Chicago Academy of Sciences, February 8, 1881. *American Naturalist*, July, 1881.

19. Cerebral Anatomy Simplified. CHICAGO MEDICAL JOURNAL AND EXAMINER, November, 1880.

The four last-mentioned papers defend the theory advanced by the doctor, that the cerebellum of all animals is composed of a number of intervertebral ganglia, more or less fused together, and that all the lobes of the brain are similarly originated, just as the Gasserian ganglion is an intervertebral.

20. The Study of Biology, Its Importance and Tendencies. A lecture delivered before the Chicago Electrical Society, November 21, 1881.

21. Drug Adulterations. *Druggist*, Feb. 1881.

22. Oleate of Mercury. *Druggist*, Jan. 1882.

23. Schmidt on Yellow Fever. Read before the Chicago Biological Society, April 6, 1881. CHICAGO MEDICAL JOURNAL AND EXAMINER, May, 1881.

24. Medical Electricity. Vice-Presidential address to the Chicago Electrical Society, October, 1881. CHICAGO MEDICAL JOURNAL AND EXAMINER, Nov. 1881.

25. Nerve-Cells and their Function. Read before the Illinois Microscopical Society, March 11, 1881. Abstracted (badly) in *Chicago Medical Review*, March 20, 1881.

26. Nerves and Nerve-Cell Function. Inaugural Thesis, American Neurological Society, New York, June, 1881.

Advancing the idea that the main function of the nerve-cell was histogenetic, and not force-producing.

27. Somatic Physics. American Electrical Society Thesis, December 8, 1880.

28. Probable Branchial Origin of the Thyroid and Thymus Glands. "*Science*" (New York), June 25, 1881. Suggestion that these bodies are rudimentary gills.

29. Hunger the Primitive Desire. "*Science*," Jan. 1881. A philosophical fusion of the sexual and ingestive acts.

30. Contributions to Comparative Psychology. No. I, Instinct and Reason, "*Science*," May 28, 1881; No. II, Origin of Language, "*Science*," July 23, 1881.

31. Artistic Anatomy and the Sciences Useful to the Artist. Opening lecture of a course delivered at the Art Institute during the winter term, 1882-3. CHICAGO MEDICAL JOURNAL AND EXAMINER, February, 1883.

32. Disadvantages of the Upright Position. A lecture delivered before the Chicago University Club, April 1882, and Philadelphia Academy of Sciences, May 23, 1883. *American Naturalist*, July, 1883.

HER Royal Highness, Princess Christian of Schleswig-Holstein (Princess Helen of England), has taken a course of lectures in the Kensington Centre Institution, and, passing the examination, she received her diploma as a "nurse." She is the same who translated into the English language the work of her brother-in-law, Prof. Romarch, at Kiel, which he wrote for the first instruction in accidents.

THE well known "vegetarian" Wagner, at Basel, died from cancer of the stomach. He taught total abstinence from meat and he lived only on vegetables. He called his way of living the "long-life" way, but he was only 43 years of age when he died.

THE *Med. Chir. Central-Blatt* at Vienna, has recently been confiscated on account of an article on the titles of surgeons in this happy country.

THE
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Original Communications.

ARTICLE I.

TREATMENT OF EMPYEMA. Read before the Chicago Medical Society, April 16, 1883, by E. FLETCHER INGALS, A. M., M. D., Prof. of Laryngology, Rush Medical College. Prof. of Diseases of the Throat and Chest, Woman's Medical College, Chicago, Ill.

Empyema, or, as it is often termed, chronic pleurisy, is an affection which has been so long known that little of interest can be said regarding its history, etiology or symptomatology; but much interest must necessarily be felt in the treatment, which has been greatly improved within the past few years.

No longer ago than 1874, Dr. Loomis* wrote that only one-eighth of the cases of empyema which are operated upon recover, while one-fifth of those in which a spontaneous opening occurs get well; but I cannot think there would be such a large mortality if proper treatment was adopted.

Of fourteen cases which have lately come under my observation, where operations have been performed, only five have died,

*Loomis, *Diseases of the Respiratory Organs, Heart and Kidneys*, p. 200.

and of these, two were moribund when operated on, living only a few hours, while one died three weeks after the operation, apparently from the opening of an abscess of the liver into the peritoneal sac.

One died three months after the operation from exhaustion. I operated on this case for another physician, and the subsequent treatment was left almost entirely to the patient. Could he have had care, I think he would have recovered.

The fifth case was one in which the effusion was at first sero-purulent, and he died, notwithstanding the best care I could give him.

The two cases that were moribund at the time of aspiration, I had never seen before. I think they might have recovered had they been operated on a few weeks earlier.

Excluding these two cases and the one who died from the opening of the abscess into the peritoneal cavity, only two, who had any reasonable chance of recovery, have died, out of eleven cases, and considering the unfavorable surroundings and lack of treatment of one of these, it seems hardly fair to use it as evidence against the operation.

But one out of ten cases would then be left, and in this the effusion was sero-purulent at first, which condition, according to Bowditch,* is nearly certain to prove fatal. However, at the worst, the deaths were only a fraction over twenty-eight per cent., while the quotation referred to gave over eighty-seven per cent.

Of some of these cases I have no notes; of some, the notes are meager, while others present no features of peculiar interest.

CASE I.—Is interesting from the fact that the patient was only ten months old, and recovered after a single aspiration.

The babe was the daughter of Mr. R., of this city, who called me to see the child on the 10th of last January.

I found her suffering from what appeared to be an ordinary cold, but three or four days later she began to develop signs of pleurisy of the left side.

The disease went on through its usual course until about the end of the third week, after which the patient ceased to improve, and remained in this condition for some time.

*From a personal letter from Bowditch.

She was eating but little, sweating profusely, vomited often and had a bad cough. At the end of the fifth week, finding that there was no tendency toward absorption of the effusion, I aspirated the chest and removed about eleven ounces of pus.

The cavity was not entirely emptied, but as some blood made its appearance, I thought it best not to continue the operation. It is now six weeks since I operated, during which time the patient has steadily improved. There has been no re-filling of the cavity, and the lung has expanded well since I last saw the child, and I have been told by the parents that it appears to be entirely well, having no cough, sweating, indigestion or dyspnoea, and is steadily gaining in weight and strength. *

CASE II.—J. E., æt. thirty-five, came to the dispensary in April, 1881. He gave the history of an acute attack of pleurisy five years previous. I found marked distension of the left side of the chest, flatness on percussion, and absence of respiratory murmur. The heart was crowded two inches to the right, and there was a distinct mitral murmur.

I aspirated the chest and removed three quarts of pus, when I was obliged to stop, because of a sense of pressure on the sternum, though the cavity was not emptied. I repeated the operation six times during the following two months, but was never able to empty the cavity until the last operation. During this time, the fluid had gradually diminished in quantity, and was becoming less purulent in character.

At the seventh operation, I withdrew one quart of slightly purulent fluid, making about twelve and one-half quarts in all. The cavity was then empty, and I determined on a radical operation as soon as it should refill. The patient did not return to me again, until the September following, having been working all summer. Upon examination, I found the left side of the chest again distended, measurement showing the circumference of the right and left sides to be respectively sixteen and seven-eighths and seventeen and one-fourth inches. I aspirated, and drew off seventy-four ounces of sero-pus, and two weeks later I removed thirty-six ounces more.

* Since the above writing the father has reported to me that the child is perfectly well.

The operations were repeated from time to time until October 4, when I introduced the aspirator needle in the axillary region, between the sixth and seventh ribs, and drew off about two ounces, which seemed to empty the cavity. The fluid was slightly tinged with blood, but to the eye had no appearance of pus. This was the thirteenth and last operation.

During the treatment, the patient had taken iodide of potassium, tincture of iron, quinine, strychnine, etc., from time to time, and had been given sedatives when needed, for cough.

~~From~~ The patient again in January, 1883. He had been troubled with a cough for two months, and recently with an abscess in the ear. The side was retracted, and contained no fluid. I ordered a simple cough mixture, which was effective.

I did not see him again until April 3, when he stated that he had been feeling badly for some time, but had been sick only about two weeks. He was coughing considerably, and expectorating muco-pus. His general appearance was bad. Examining the side, I found it as large as the other, and tympanitic on percussion. Amphoric respiration could be heard over the entire side. There was no fluid in the pleural cavity.

This is one of those rare cases in which repeated aspiration cured the empyema. I should have deemed it best to perform a radical operation in this case early, had I been able to empty the pleural sac without giving pain, but as this was impossible before the seventh operation, on account of compression of the lung of long standing, no other course was left for me. Subsequently, the gradual diminution in the amount of liquid at each operation, and the lessened percentage of pus each time, with its final disappearance, rendered the radical operation unnecessary.

The pneumothorax had been recently developed, and not until all evidence of purulent effusion had been absent for fifteen months. It was doubtless due to rupture of the lung, some part of which had become much weakened by pressure which it had to bear as the result of the retracted condition of the chest wall, which had a constant tendency to regain its former position. Had drainage tubes been inserted in this cavity four or five years earlier, the two surfaces of the pleura would have become adherent, and the pneumothorax would not have occurred.

CASE III.—The notes of the following case have been kindly furnished me by Dr. J. L. Mulfinger, of this city, for whom I operated.

The patient, H. S. a boy, aged three years and nine months, was taken in the latter part of February, 1881, with scarlet fever. The fever ran its usual course, with this exception, that the eruption was not well marked, and lasted but two days. The throat symptoms were unusually severe.

With the subsidence of the rash the temperature gradually diminished until the desquamative stage was reached, at which time it was 100.5° F.

At about this time, although the patient had been closely watched and not allowed to leave the bed, he began to be troubled with a cough, which in a few days became severe, the temperature again rising until it reached 105° F.

The respiration became short and quick, the patient sweating profusely. The doctor found an effusion in the left pleural cavity, and on April 9th I aspirated the chest, drawing off about a quart of pus, when I was obliged to desist on account of the pain. The cavity re-filled, and on April 15th I introduced two drainage tubes, and allowed the fluid to escape until the patient complained of pain. A one per cent. solution of carbolyzed water was then run into the cavity until it was sufficiently full to relieve the pain. On the following day, the cavity was *thoroughly* washed with carbolyzed water.

This was repeated twice daily for several days, the tubes being kept closed in the interval. At the end of a week the patient's general condition had so much improved that he was able to eat.

The cavity steadily decreased in size, and in a short time would hold no fluid. The tubes were now gradually withdrawn, the washing out of the cavity being continued, one of the tubes being accidentally washed out about the 5th week.

The other tube was removed a week later, and at the end of the seventh week the patient had completely recovered.

He has since grown well, having perfect use of the lung and no difficulty with the side.

This was the first case in which I used two drainage tubes.

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They were inserted through separate openings about an inch apart.

In subsequent operations I used two drainage tubes, but they were both passed through the same opening.

One feature of this case was of special interest as disproving the theory, which I have seen advanced, that there was no need of cleansing the cavity. About five days after the operation, the doctor called, after a longer absence than usual, and found that the patient's temperature was three and one-half degrees higher than when he last saw him. Upon cleansing the pleural sac the temperature fell to its normal point, and did not again rise during the treatment.

CASE IV.—I was called August 1, 1881, in consultation with the late Dr. Mead, to see C. G., who had been taken six or eight weeks previously with an attack of typhoid fever, which had been followed by an attack of pleurisy.

I found the patient in a greatly prostrated condition, and sweating profusely. He was suffering considerable pain, and experiencing great difficulty in breathing, the right side of the chest being distended to a marked degree. The patient was greatly emaciated, and was in a general anasarctous condition. I aspirated the chest, and withdrew about a pint of pus, when I was obliged to desist because of pain. Four days later, I again aspirated, drawing off at this time about twenty-four ounces of pus.

On August 8, I performed the radical operation, introducing a large-sized trocar about one and one-half inches to the right of the mammillary line, between the fifth and sixth ribs. Through the canula I inserted two drainage tubes; then withdrawing the canula, the drainage tubes were left in position.

I left instructions for the frequent cleansing of the cavity, and gave directions for the subsequent use of astringent injections. Solutions of sulphate of zinc, varying in strength from gr. ii-xxx to ʒi were used, and later, the sulphate of copper, in solutions varying in strength from gr. v-xx to ʒi. The cavity was washed out twice daily, and part of the time free drainage was allowed by leaving the tubes open, the end resting under water; but much of the time, for the first few weeks, the patient insisted upon keeping the tube closed, as it caused him less inconvenience.

Weak astringent solutions were used at first, the strength being gradually increased, until, at the end of two months, we were using about gr. xx- $\bar{3}$ i of the sulphate of copper every other day. The cavity, at this time, had a capacity of about two ounces.

The patient then went into the country, remaining two or three months, during which time he used the injections himself. On his return, I found that the cavity would hold only about $\bar{3}$ ii.

In the month of February following, he came to me again, and upon examination, I found the cavity completely obliterated, with the exception of a sinus which extended nearly longitudinally backward from the opening for a distance of about six inches.

To heal this, nitrate of silver in strong solution was used, but with little improvement; afterward tincture of iodine, solid nitrate of silver, solid sulphate of copper, and finally, fuming nitric acid were employed. The latter gave the best results, about one and one-half inches of the sinus being obliterated in a short time, but as the patient was living in the country, so that I could not see him often, I unfortunately gave him some of the acid, directing him carefully how to use it, and asking him to come and see me again in three or four weeks.

He used it so faithfully that the former good effects were completely counteracted, and on his return, I found a cavity holding $\bar{3}$ ii. Milder measures were then adopted.

My method of using the nitric acid had been to oil a soft rubber catheter thoroughly, and then draw into the distal end of it one or two drops of the acid. The catheter was then introduced into the bottom of the sinus, and the acid expelled by blowing into the tube. The patient, I presume, used five or six drops at a time, and repeated it too often.

Finally, about August 1, I had a long, flexible electrode made, and used it with the galvano-cautery, following the cauterization, for several days, with an injection of a solution of acetate of lead, gr. xx- $\bar{3}$ i. The cauterizations were repeated two or three times, with the best of results, the case being reported to me as perfectly cured about a month after the first cauterization.

The electrode was first tested with the battery, to ascertain the length of time necessary for the wire to become red-hot, which was usually about four seconds. After allowing it to cool, it was

introduced to the bottom of the sinus, and the electric current turned on; after about five seconds it was withdrawn so as to sear two or three inches of the sinus, and then the current was cut off.

In the five cases remaining which have recovered, there was nothing of peculiar interest.

Of the five patients that died, two, as already stated, were dying at the time of the aspiration, and neither presented any peculiar features. In the two who died of exhaustion after the radical operation, one had good care, and the other practically none.

The remaining one of the fatal cases presented some interesting features, which are detailed below.

CASE V.—The patient, G. T., æt. seventeen, a schoolboy, was taken sick April 22, 1882. He went to bed apparently well, but awakened at 3 A. M. with a severe chill, followed by fever and vomiting, and pain in the right hypochondriac region.

Dr. E. Ingals saw the patient the next day, at which time he seemed much better, having no pain; but about forty-eight hours after the first attack, the pain in the region of the liver again returned, and he was never free from it afterward. Three days later, the abdomen became tympanitic, the pain extending over the entire region, and a few days afterward the pain extended above the diaphragm, the pleura having become involved.

On May 8, after consultation with Dr. E. Ingals, I inserted an aspirator needle near the axillary line, between the fifth and sixth ribs, but obtained no pus. I then inserted it near the angle of the ribs, in the eighth intercostal space, and withdrew seventy-five ounces of pus. The patient now began to complain of pain below the lower border of the ribs on the right side anteriorly, so the aspiration was stopped, but the pain still continued, and became so severe as to cause great depression, and finally collapse, from which he did not rally until after eighteen or twenty hours.

May 14, I introduced two drainage tubes, through a canula, the trocar of which was inserted near the point of former puncture.

Several ounces of pus escaped while the tubes were being introduced, but no air entered. No pus was withdrawn through the tubes. Next day, I found that there had been no leaking, and no bad symptoms. The tubes were opened, but after four

ounces had escaped, was obliged to desist on account of the pain.

I saw him again May 20. The tubes had been opened twice a day regularly, and a weak solution of carbolic acid run in at one while the pus escaped at the other, but it was impossible to empty the cavity of the water after the pus had been washed out, on account of the severe pain. The pulse ranged from 104 to 120. Temperature 99.5. For the last two days, the patient had complained much of nausea and "rolling" of the stomach. I then substituted eucalyptol and boracic acid for the carbolic acid.

On the morning of May 25, saw the patient felt and appeared better than ever before since the first operation.

He had been steadily improving until two days previously, since when he had complained rather more than before of pain.

No air had entered the chest, but, although the cavity was evidently much smaller, I was unable to empty it on account of the pain.

In the evening, the father reported to me that the boy had had a chill, and was still cold. I found him in a condition of collapse. When I saw him the next morning, he had not recovered from the collapse, and had vomited frequently a dark greenish fluid.

In the afternoon he was much worse, and appeared to be sinking rapidly.

With each expiration, a large bubble appeared to break through the fluid in the stomach. He died at 6 o'clock the next morning. I could not get a post-mortem.

These cases illustrate what may and what may not be done by operative procedures. The statistics which show that one-fifth of those in whom a spontaneous opening occurred recovered, while only one-eighth of those operated on recovered, would at first seem to render operative procedure unjustifiable; but we must not overlook the fact that in these, the cases which did not live long enough for the opening to occur are not mentioned. If the latter cases could be accurately collected, it would probably be found that not more than one in thirty recover when left to nature.

Four or five operations, similar in character, have been recommended in the treatment of empyema. Of these, aspiration is the first, and should always be done, not only as a means of determining if it be actually empyema, but to ascertain whether

or not the cavity may be emptied without causing great pain. The operation itself causes only momentary pain, and the evacuation of the pus is usually attended with very little danger, provided it is stopped at once, when the patient complains of a sense of pressure on the sternum, or has a strong inclination to cough, or when blood appears in the fluid.

Any of these symptoms indicate that more pressure on the delicate air-cells would be unsafe.

Second.—An operation in which a valvular opening is made with a scalpel, the wound being carefully closed after the pus has been evacuated. It is much less satisfactory in its results than those operations in which provision is made for free drainage of the cavity.

Third.—Chassaignac's operation for free drainage, which is done by making two openings in the chest, one above and the other below, and passing through them a perforated drainage tube.

This operation has fallen into disuse, as more recent methods have been found more successful.

Fourth.—An operation recommended by Fraentzel, in which the thorax is opened and a short metallic tube inserted, through which catheters may be introduced to wash out the cavity. This is one of the best operations for empyema, and there may be a few cases in which it is the very best, but the difficulties encountered in keeping the canula in position, and the amount of personal care from the physician which is demanded, make it less desirable, in the majority of cases, than the operation which I have performed for several years.

Fifth.—The operation which I like the best for its simplicity, convenience and good results, is made by puncturing the thoracic wall with a broad, flat trocar, through which two drainage tubes, or rather, a tube bent upon itself, is passed into the pleural sac. The canula of the trocar which I use is two inches in length, measuring one-half of an inch in its broadest diameter, and one-fourth of an inch in its shortest diameter. The drainage tube used is pure rubber tubing, with a caliber of one-eighth of an inch. The ends which are to hang in the pleural cavity are perforated, one for a distance of an inch, and the other a distance of about four inches, in order to facilitate perfect cleansing of the cavity.

I first make an incision in the skin one-half inch in length, through which the trocar is plunged into the pleural cavity. As the perforator is withdrawn, the pus spurts from the canula, but is immediately stopped by the thumb until the double tube can be picked up. The latter (the external ends of which have first been closed by a string) is then pushed in through the canula the required depth, usually four or five inches, and the canula withdrawn, when the tissues contract firmly on the rubber tube, so as to prevent either the entrance of air or the exit of pus.

In order to still farther protect the opening, the drainage tubes are now passed through a piece of sheet rubber three inches square, near the center of which, and within an eighth of an inch of each other, two small holes, one-twelfth inch in diameter, have been punched.

This sheet is carried down close to the surface of the chest, where it acts as a valve to prevent the entrance of air, should the tubes become loose. Then over each tube, by the aid of a canula, is carried a half-inch section of the same kind of tubing, through which two loops of stout cord have been passed.

These sections are carried down close to the chest, through the loops are passed adhesive straps to make them fast, and thus secure the drainage tubes, and over the dressing, close to the drainage tubes, is passed a bandage. The operation is then complete, and not more than an ounce of pus will have escaped, and not a particle of air will have entered.

The tubes may then be opened under water, and the pus allowed to escape, but in some cases, on account of shock, I have thought it best to delay washing out the cavity, or even allowing the pus to escape, until the next day.

With the tubes thus arranged, we have perfect control of the case, and if we desire it, all air can be excluded from the cavity for eight or ten days, but by the end of this time, the tissues usually retract about the tubes so that air is liable to enter; there is, however, no objection to this at this time, though earlier it is sometimes objectionable.

Usually, for the first three or four weeks after the operation, the cavity should be washed out daily with antiseptic solutions; later, stimulating washes of the sulphate or chloride of zinc,

sulphate of copper, iodine, etc., must be used, if the cavity does not steadily decrease in size. I think it especially desirable to carefully watch the progress of healing after the cavity is reduced to a capacity of one or two ounces, for from this time on, healing is apt to be slow, and unless care is used, a troublesome fistula will remain.

ARTICLE II.

POINTS IN TYPHOID FEVER. SERVICE OF DR. M. MANNHEIMER, ALEXIAN BROTHERS' HOSPITAL CHICAGO, DR. THOMETZ, HOUSE PHYSICIAN.

From August 1, 1882, to January 20, 1883, there were treated in the Alexian Brothers' Hospital fifty-two cases of typhoid fever. Of this number, twelve (12) were admitted in August, sixteen (16) in September, eleven (11) in October, eight (8) in November, and five (5) in December.

Most of the patients were between twenty and thirty years of age, the youngest being fourteen, and the oldest forty-five. Nearly all of them were sick from one to eight days before entering the hospital. The usual prodromic symptoms were complained of. The principal symptoms were headache, dizziness, chills, insomnia, excessive thirst, and a tired, painful feeling in limbs. The countenance usually presented a flushed appearance, and in a day or two later, a dull, stupid expression, the tongue being dry, nearly always coated, and often swollen. Epistaxis occurred in 15 out of the 52 cases; looseness of the bowels in about 40. The typhoid spots on the abdomen were found in 23 cases only. In four cases, the disease set in suddenly, with intense headache and violent delirium. For diagnosis, the symptoms usually relied upon were headache, fever, dicrotic pulse, and enlargement of the spleen, not omitting the appearance of the tongue. The spleen was found enlarged in 31 cases on admission to the hospital, and the pulse found to be dicrotic in at least the same number of cases.

Two of the patients claimed that they had typhoid fever several years ago.

During the course of the disease, the usual symptoms of typhoid fever were met with, want of appetite existing in nearly all cases during part of the disease. The characteristic pea-soup stools were found in almost every case; exceptionally, there would be no appreciable change from the stool of a healthy individual.

Tympanitis, intestinal gurgling, and iliac tenderness were also found. Slight hæmorrhage from the bowels occurred in four cases.

A subacute bronchitis existed in almost every case, hoarseness of the voice from slight laryngitis, and deafness from the dried condition of the mouth and Eustachian tube leading to the ear.

Slight delirium usually occurred in the middle of the disease, the delirium not being very violent or acute, except in those cases already mentioned, where disease commenced by delirium. Mental condition was weak, dull, and indifferent.

The pulse was accelerated, in ordinary cases, to about 90 beats per minute, in many cases not going over 90 throughout the disease. In the more severe cases, the pulse would range from 90 to 120, being at the latter figure during the height of the fever. As convalescence approached, the pulse would decline, often below normal, to 60, and in several cases to 40; the main characteristic of the pulse being its quick, vibratory and dicrotic quality.

As regards the temperature, we found a gradual rise, both in morning and evening, until a certain height was reached, where it would remain four or five days, sometimes two weeks, and then gradually decline.

There was a difference in the morning and evening temperature of from 1 to 2° F. At the height of the disease, the temperature in the evening ranged between 104° and 105°; and in the morning between 102° and 103.5°. When the fever had declined, it was not unusual to see the temperature of body rise almost suddenly to 103°, and even higher, and in a few days become normal again. A sudden rise during the course of the disease betokened some complication.

Relapses occurred in six cases, and these passed through a second career with the characteristic symptoms aggravated but of shorter duration. None of these proved fatal.

Of the complications that occurred, there were three with acute bronchitis, one with laryngitis, five with pneumonia, two

with thrombosis of femoral vein, both of the left side, and one case with acute orchitis and epididymitis. Perforation of the intestine occurred in one case; the perforation on post mortem examination was found to be about eight inches above the ileo-cæcal valve.

Average number of days of treatment was twenty-six, counting from the time the patients entered until fever was gone for six to ten days, and the men able to be around the hospital.

Forty-two patients were in hospital four weeks and less, eight were from six to nine weeks, and two cases were there three months before they left.

Out of the fifty-two cases, four terminated fatally. The cause of death in one case being the occurrence of a pneumonia; one died from peritonitis following a perforation; one, aged 44, died from continued high temperature, and one death occurred in an overworked and debilitated patient.

TREATMENT.

The object of our treatment was not to abridge the duration of the disease, but to tide the patient over it. The diet was carefully attended to; milk, eggs, and farinaceous preparations were used. About 7 A. M. the patients were allowed a cup (8 ounces) of milk with a slice or two of toast; at 9 A. M. and 3 P. M. they received a bowl of milk punch (consisting of milk, eggs, and whisky). For dinner and supper—milk, toast, and farinaceous soup. This plan of dieting suited nearly all of the patients, and rarely was it necessary to make any change.

Alcohol was used judiciously. As soon as there were any indications for its use it was administered as a supporting and stimulating measure.

Nearly all were put on a slightly acidulated mixture, $\mathfrak{ss}$ of dilute muriatic or phosphoric acid in $\mathfrak{ss}$ of water, and $\mathfrak{ss}$ given three or four times daily. Water was freely allowed, to be taken often and in small quantities, so as not to overload and distress the stomach. Cleanliness, free ventilation and good nursing was required in the fever ward. Palliative measures were now and then called for. Protracted insomnia was relieved, and refreshing sleep procured by bromides. Excessive and exhausting diarrhoea was immediately checked by astringents in a mucilag-

inous mixture. Constipation relieved by injections of warm soap water.

REDUCTION OF TEMPERATURE.

Believing that many typhoid cases would die from the continued high temperature it has been our endeavor to keep down the bodily heat. For this purpose, various methods have been tried. Quinine in 15, 20, 40 gr. doses have been tried and with good results in a few cases. In two patients, whose evening temperature, was 105° and 106°, 30 grs. of quinine in one dose reduced the temperature to 98° F., and no subsequent rise. But most of the patients objected to the quinine, vomited it up, or complained of headache upon its use. Digitalis and quinine together were sometimes used. Sponging the body was resorted to in some cases.

Packing the body in the wet sheet and sprinkling with cold water reduced the temperature from one-half to two degrees in from three to four hours; the temperature would rapidly rise on removing patients from the sheets.

Salicylate of soda was used, and by far the best results were obtained from its use. The drug was exhibited in doses of 15 grains every $\frac{1}{2}$, 1, 2 or 3 hours, depending on the temperature. If the temperature was 103° or higher in the morning, two doses were given $\frac{1}{2}$ hour apart, the third dose an hour later, and if a fourth dose was necessary, it was given 1 or 2 hours later, until the effect of immediate reduction in temperature followed. After the first, or at least second dose, the dry, burning skin becomes moist, the rapidity of the pulse lessens. After using it two or three days, the dry, parched tongue becomes wet, the black fur gradually disappears, and the patient gets a ravenous appetite.

In three-quarters of our cases, we have used the salicylate to keep down the temperature, and find it to be better than quinine or any form of wet packing. It is easily taken, does not disturb the stomach as often as is thought, and does not weaken the patient. Only one patient out of about forty who used it, complained of headache from its use.

When several doses were used in quick succession, a tablespoon of whisky was given with each. To show the action of the remedy, a copy of one of the records is subjoined:

A. D., age 25, entered hospital in evening, with temperature of 103.4°. In morning at 9 o'clock, temperature was 101.4°; at 10, 11 and 12 he took 15 grains of sodic salicylate; at 2 P. M. temperature was 101.2°, and 6 P. M., 100.4°. Next morning, temperature was 101.4°; at 2 P. M., 103.2°; and at 2:30, 3:30 and 5, 15 grains were given; at 6 P. M., temperature was 101.2°. Next day no salicylate was used, and the evening temperature was 103.5°. These figures speak for themselves.

If one drachm of the drug is used in one dose, its effects are not as good and as persistent as when given in 4 divided doses.

It seems that by its use, the duration of the disease is not as long as without its use; the patients seemed improved in every way; they felt better and looked better. They convalesce rapidly. Why it acts so favorably, we cannot say, unless it should be that some form of poison in the blood is rapidly eliminated through the skin and kidneys. We could find nothing better than it, and nothing equal to it, unless it should be the judicious and frequent use of cold baths, and these cannot be given properly where there are many patients.

ARTICLE III.

CASE OF DEFLECTION OF THE SEPTUM NARIUM. By E. FLETCHER INGALS, A.M., M.D.,

Professor of Laryngology, Rush Medical College; Professor Diseases of Throat and Chest Woman's Medical College, etc., Chicago.

The little patient, F. McG., aged 28 months, was brought to me by the family physician, Dr. P. J. Rowan, of this city, about the middle of last February, on account of obstructed nasal respiration and deformity of the nose due to deflection of the septum.

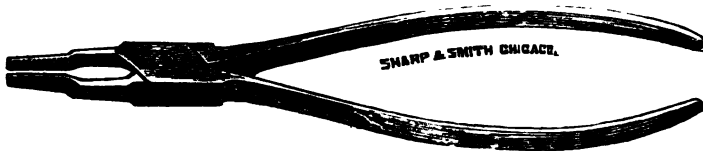
The child was apparently perfectly healthy excepting a rhinitis. The mother told me that several weeks previously he had received two or three severe falls, striking upon his nose, and since that time she had noticed some deformity and gradually increasing difficulty in nasal respiration, with resulting restlessness at night.

I found the end of the nose bent to the right and flattened,

and the septum bent in the opposite direction so as to completely occlude the left naris. A few days later, with the assistance of Dr. Rowan, I gave the child chloroform, and, with a nasal forceps, bent the septum forcibly back to its normal position, where it was retained by means of a plug of gutta-percha inserted into the left naris, and held in position by its end being lodged in the pocket at the tip of the nose.

A couple of days later this plug was replaced by a gutta-percha tube accurately fitted to the nasal cavity, which was worn for the next five weeks until a perfect cure was effected.

The forceps which I use for the purpose is similar to that of Dr. William Adams, of London, England. It has long, flat blades which when closed do not touch each other by about two millimeters, thus leaving a space which prevents too severe contusion of the tissues of the septum. Between the ends of the blades and the joints there is a much wider space as represented



in the annexed cut, which allows for the thicker tissues between the nostrils.

In performing this operation it is important to bend the septum thoroughly or even to break it so as to destroy its resiliency, otherwise it will immediately spring back to its abnormal position, and even though the plug be worn for weeks, a cure will not be effected.

In deflection of the septum, as I have formerly pointed out,* there are various degrees of deformity due either to simple fracture or distortion of the septum, or to enlargement of its cartilaginous portion with consequent bending. The latter cases cannot be cured by the method here described, but, as stated in the article already referred to, the excess of tissue must be removed.

After the septum has been replaced it may be held in position

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by plugs of cotton, or sponge, or by clamps or solid plugs, fitted for the purpose. The porous substances are objectionable because they soon become very offensive and have to be removed, which causes the patient much pain.

The clamps, as recommended by Adams, are theoretically valuable but practically undesirable.

A properly-fitted smooth plug or tube, which will not absorb moisture, will be found most satisfactory. I have found gutta-percha to be the best substance of which to make the plug or tube, as it can be easily and accurately molded by the surgeon to fit the case in hand; while hard-rubber tubes or plugs must be made by the instrument-maker, and can seldom be made to fit.

It is not difficult to construct a tube out of gutta-percha by molding it over a small wooden plug shaped to correspond to the nasal cavity.

After the operation the plug, which will have to be worn for a number of weeks, need not necessarily be removed oftener than every second or third day during the first week, and less frequently afterwards.

In the treatment of a deflected septum the operation must be thoroughly done, and the after-treatment must be carefully attended to; thus we may relieve our patients of the manifold evils which attend occlusion of the nares, and, in a majority of cases, we may correct the distortion of the nose which results from bending of its supports.

ARTICLE IV.

WAS IT A CASE OF PROLONGED GESTATION? By S. F. BENNETT, M.D., Richmond, Ill.

On March 19th, I was called to Mrs. S., a fleshy, robust and plethoric woman, aged 24, and well advanced in her second pregnancy. She informed me that her last menstruation occurred in the latter part of the preceding June. She was positive as to the date, because certain circumstances had impressed it upon her memory that she was "all through" before the first day of July. The

attack for which I was called was one of cerebral congestion. On account of the general plethora, and for certain other reasons, I advised a bleeding, but the patient had a dread of the lancet, and I temporized with potass. bromide, and informed her she might expect her labor about the 8th of April, as, following the old rule and counting back three months from June 30, and adding seven days, it would give us about the date I had indicated. The attacks of cerebral congestion becoming more frequent and severe, the patient submitted to venesection, April 29th, with the effect of relieving the head symptoms. The labor finally came on May 7th, and occupied eighteen hours, the first hint of its approach having been the sudden discharge of the waters, without the slightest antecedent pain. The presentation was normal, and she was delivered of a lusty ten-pound boy. Does not an analysis of this case show that it is probable that the term of Mrs. S.'s gestation must have exceeded 270 or even 280 days considerably?

DURHÆMATOMA.

A woman, forty-two years of age, began to suffer from loss of memory and a depressed mental state. Later, the pupils enlarged, and she was slow in all her actions, but without motor disturbances. The vision became defective, especially the periphtric, and there was entire loss of smell. Death followed suddenly, with vomiting and collapse. The autopsy showed a hæmatoma in the dura mater, forming a sac, which was filled with liquid and coagulated blood on the right hemisphere, which latter was flattened and curved inward. The larger part of the central convolutions, and those of the frontal and temporal lobe, were compressed to a concave plane. It was remarkable that this compression in the motor region did not produce a more extended distribution of disease in the brain, but the coagulation of blood having only occurred after death, the pressure must have been not very great, the cerebro-spinal fluid being equally diffused, and flowing off partially in the venous sinus of the dura and partially through the lymphatic vessels of the head.—*Med. Chir. Centralblatt.*

ARTICLE V.

TIMELY CATHARSIS. By THOMAS N. REYNOLDS, M.D., Professor of Materia Medica and Therapeutics, and of Clinical Medicine in Detroit Medical College. (Read Before the Michigan State Medical Society, and printed in this Journal with the Consent of the Society.)

Cathartics are as old as the history of man. They were used in every age, and the most primitive people observed their utility.

Native fruits, barks, and juices of plants are still used by the American Indians, and crude people of other countries. They use them with remarkably good judgment, but do not largely understand their *modus operandi* or their varied applicability. That wider knowledge and fine appreciation of the *modus operandi*, and consequent proper use of these remedies, as of those of every class, remains not only for a higher civilization, but for its more scientific and well trained physicians.

Generally it is not difficult to know whether to give or withhold some form of cathartic, but sometimes it requires of the most experienced the best consideration. A severe cathartic many times may be fatal; and so may withholding it be at others. In other cases, recovery may be retarded by too frequent purging, and in more, retarded by withholding the appropriate cathartic.

We will refer a little here to the use, rather than the abuse, of these remedies.

1st. In habitual constipation, where diet, exercise, regular habits, nervous tranquility and other advisory measures fail, it is necessary to give some laxative cathartic. The strength of the dose will vary with almost every individual; but the mildest should be used, if sufficient to produce one daily action of the bowels. Sometimes a glassful of warm water before breakfast will suffice; but, again, it may be necessary to begin with a large dose of some active cathartic, and then gradually decrease it to

nothing at all. Generally this can be done ; but sometimes cathartics cannot be wholly dispensed with for any great length of time. Then some sufficient cathartic should be taken as required ; for though habitual constipation does not kill people suddenly, it does often kill people slowly. It is the important office of the lower bowel to remove from the body the unappropriated part of the food, and a large part of the excrementitious tissue waste. This failing, the kidneys are vicariously overworked, and from this undue irritation sometimes ultimately succumb to chronic interstitial inflammation. Every other organ and tissue also suffers from the presence in the blood of the reabsorbed excrementitious matter.

With regard to the kind of cathartic. Many think some one in particular is especially superior to every other, but that is not usually the fact. Any one of the scores of cathartics, taken in just sufficient quantity to produce the daily action, will generally accomplish the result as well as any other, provided the patient be not impressed with the paramount importance of having it do so at about a certain time. If this importance does become uppermost in the mind of the patient at a certain time of day, he will generally soon be able to live without any stimulus to the bowels but that of the mind, directing the necessary nervous energy to the performance of that function.

With most persons the morning is the best time. One of the excito-motor neurotic remedies is sufficient for some persons at times. Minims ii or iii of tincture of *nux vomica* in water, taken every hour for a few doses on rising, or the same of *belladonna*, will often suffice ; and warm coffee is a very constant and often quite prompt stimulus to intestinal peristalsis. Enemas may very properly be used in some cases, but continued enemas are not generally an advisable mode in chronic constipation.

2nd. Many cases of very extreme dyspepsia, that resist all other forms of treatment, and are found to have been preceded and accompanied by constipation, are relieved at once, and ultimately cured by gentle catharsis.

Magnesii sulphas is often the best selection. I sometimes prescribe :

℞ Magnesii sulph.....℥i
 Acidi sulphur. dil.....℥ij
 Aquæ ad.....℥iv

Misce et Sig.—Teaspoonful in water before eating.

3rd. In almost every injury or acute disease not connected with the bowel itself, and involving a taking to bed, an immediate evacuation of the bowels is a leading essential, if an existing laxness be not ascertained. It not only relieves the alimentary canal, but wonderfully relieves that high arterial tension, seen in most subjects immediately after the injury or reaction from shock, or after the invasion of any acute inflammation or essential fever. It acts as a revulsant of nervous energy from the circulatory apparatus, and thus lessens the abnormal frequency and violence of cardiac and arterial contractions. It may not always be best to repeat it if high arterial tension remains or returns, and it may sometimes be better to give hourly minim doses of tincture of aconite, or veratrum viride, or large doses of quinine; but many will bear a second cathartic action well, and will be more permanently benefited thereby.

4th. In acute lobar pneumonia of the plethoric, a prompt and active cathartic is very important, when given early. The benefit is threefold: It acts as an ordinary evacuant, depletes the general circulation, and diverts in a degree local vasomotor nervous excitement from the pulmonary vessels. Cathartics are useful in the same stage and same class of cases of acute lobar pneumonia that so many of the older practitioners found benefited by the abstraction of blood.

5th. In acute congestion of the liver from dietary causes, whether temporary and mild or more prolonged and severe, nothing is so radically beneficial as an occasional cathartic. Strict limitation of the dietary to cool acid drinks for the first few days is very largely curative in itself; but if the pulse be full and bounding at the wrist, a sharp purgative will act like a charm. I saw this marked in a young man lately, with hepatic congestion

and an extreme supraorbital neuralgia. Of course quinine is indispensable in conjunction, if from malarial origin.

6th. In a case of trifacial neuralgia with severe and frequent spasmodic paroxysms, under my care at St. Mary's Hospital last winter, an active cathartic arrested the attack for forty-eight hours. The colon was full, however, and she had been on opium since the onset, three days before. Its return was not so severe, and she recovered slowly. Occasional anodynes sufficed when solid food was withheld. Solid particles excited a paroxysm when in contact with the palate.

7th. In acute rheumatism, particularly in robust subjects, an active cathartic in the early stage is wonderfully ameliorating to all the symptoms. In one young gentleman, the frequent subject of acute rheumatism, an active cathartic has, in a few instances, aborted the attack.

8th. In almost all acute head, or central, or cerebro-spinal symptoms, a brisk cathartic is likely to be every beneficial, acting in these mostly as a revulsant of innervation.

In active delirium from cranial injury, I have been much impressed with the benefit of an active cathartic. In January, 1874, George N., aged 14 years, received a fracture of the temporal bone, near the base, from the newly sharpened caulk of the shoe of a horse he was leading from the shop. His delirium was violent, and it was difficult to sew up his ear, which was cut nearly off by the same caulk that produced the fracture. It was impossible to give him a pill or anything but water. Since he drank with avidity, I conceived the idea of placing two drops of croton oil on water in a small glass. This he grasped at and drank, and in an hour and a half had several watery passages from the bowels. His delirium began to leave when his bowels began to move, and had disappeared when they ceased. It never returned, but his intellect was dull for some time after he got up. He forgot the names of things, and asked for beets as "some of those red things," at the table one day. Since this case, I have never forgotten the ease of giving a cathartic in the shape of croton oil in water, in active delirium, where patients drink with avidity, but become violent when desired to take anything else.

9th. In puerperal mania and puerperal eclampsia, a pronounced cathartic is important, and must rarely be contraindicated at the onset. In a plethoric woman it is indispensable if constipation exist, and I believe that nothing can then take its place in efficiency of service.

On July 19, 1878, I was taken by Dr. Wm. McDonald, then practicing in Detroit, but now practicing in Boston, to see a case of puerperal mania in a rather robust primipara. It was two and a half days after delivery, and after two days of unremitting puerperal insanity of the maniacal form. She was being forcibly held, screamed almost incessantly, and dashed from her everything but occasional drink. There was no uterine inflammation, the bowels had not moved, and we gave her three drops of croton oil in her next glass of water. A full evacuation followed, with two or three watery passages afterward. She grew gradually quiet, soon went to sleep, and had not any more symptoms of puerperal insanity.

In violent hysteria the benefit of a cathartic is often as great.

In puerperal eclampsia, a prompt and drastic cathartic, like three drops of croton oil, repeated, if necessary, will often arrest the paroxysms and cure the patient, unless too comatose and weak from frequent repetition. It is almost equally effective whether the eclampsia be from uræmic toxæmia, or from reflex nervous excitement. It acts in both by diverting vascular and nervous excitement from the head to the great mucous surface of the alimentary canal. In uræmia, it eliminates urea as well; and unless there be diarrhœa, it is a crime, then, to delay it a moment.

In two almost hopeless cases of puerperal eclampsia, of which I had personal knowledge, my brother, Dr. Henry J. Reynolds, after resorting to chloroform, etc., gave in each three drops of croton oil every two hours till nine drops had been taken before catharsis began. Purging soon followed, however, and in both recovery took place. These cases were reported to the North-eastern District Medical Society in 1881, and published on page 145 of No. 4, vol. v of the *Detroit Lancet*, and abstracted on page 554 of No. 4, Vol. II. of the *Quarterly Epitome of American*

Medicine and Surgery, supplement to *Braithwaite's Retrospect*, of the same year.

10th. In affections of the kidneys and skin, to speak in a general way, the bowels should be carefully kept sufficiently active. In many affections of each it cannot, of course, cure, but in none can it do harm, and in some, especially of the skin, a judicious diet and action of the bowels will effectually manage the malady.

I have had under observation for two years a generously living gentleman, aged 74, the subject of chronic eczema rubrum, in whom a single failure of the daily action of the bowels produces invariably, an increase of redness and almost intolerable itching, which nothing locally, excepting hot water, even temporarily relieves, but which is effectually removed by a resort to cathartics.

THE MORAL STANDPOINT OF PORRO'S OPERATION.

Porro's operation is largely practiced in Europe at the present time. As a preventive against pregnancy on account of small pelvis, it is immoral and illegal, Cæsarean section offering more success, and it deprives the women of their procreative power, which is punished in different countries by from two to ten years penitentiary. Cohabitation with castrated women is immoral according to the religious laws of Christians and Jews. There are but two causes which justify Porro's operation. 1. Degeneration of the soft parts which cannot be removed without causing certain death. 2. Total atresia of the vagina, which impedes the secretion of the lochia, and occlusion of the vagina by non-removable tumors.—*Correspond. Blatt f. Schweizer Aertze*.

DR. ROSWELL PARK begs leave to announce that he has accepted the chair of surgery in the medical department of the University of Buffalo, and will consequently remove to that city during the latter part of August.

Original Translations.

ARTICLE V.

ETIOLOGY OF CONVULSIONS IN CHILDREN. By PROF. ADOLPH KJELLBERG. Sweden : Translated by C. W. Johnson, M.D., Chicago.

The so called functional nervous diseases occur very frequently during childhood, and convulsive diseases are especially abundantly represented.

Rhythmically, we separate convulsions into two general groups, the clonic and the tonic. Clonic convulsions are those where muscular contraction and relaxation follow each other closely, each action taking up about the same amount of time.

Tonic convulsions are those where the contractions follow each other so closely that the muscles have no time to relax between each contraction, but seem constantly rigid.

To the first group belong those convulsions that come on suddenly, usually in many muscles of the body, followed by a more or less complete unconsciousness in the patient. They attack, by preference, children, most frequently occur unexpectedly, with alarming symptoms; are hence of more than usual interest to the physician, and an explanation of their many different causes is of special importance to him. This is at times very difficult, and at times not at all discovered.

Here we frequently miss our guide that otherwise in complicated diseases solves the problem. I mean pathological anatomy. In how many cases of eclampsia and epilepsy that result in death does not anatomical pathology stand nonplussed and unable to explain the manner of the disease, in defiance of the most

thorough investigation? Not at all strange, because within the pathological science of the nerves, many processes take place that cannot be followed with knife or microscope.

Nevertheless, it is another branch of our science that has of late aided the clinical observer to explain obscure questions within the pathology of the nerves; it is the now persecuted experimental physiology. It is this branch we have to thank largely for our knowledge of nervous diseases, and to this branch we are chiefly indebted for what we know about the subject under consideration.

Brown-Sequard, Sciff, Kussmaul and Tenner have thus shown us that the point where convulsions originate is limited to the pons and medulla oblongata; Nothnagel has even located the "convulsive center" in the pons only.

Landois has found that venous hyperæmia in the brain lessens the heart-beats, and when the heart has become very slow general convulsions will result, just the same as in anæmia of the brain.

Hermann and Escher could, by completely stopping the venous blood flowing from the brain, produce general convulsions. Nasse has shown that through an increased amount of carbonic acid gas, and at the same time lessening the amount of oxygen, convulsions may be produced.

Physiology tells us that an increased temperature enhances the excitability of the nerve elements; likewise certain medicines, as strychnia.

Soltmann has shown that the motor centers discovered by Hitzig, are probably not to be found in children, but develop later; furthermore, the excito-motor nerves are wanting for the the large brain, especially the cortex as the organ for judgment, for the will is in the new born child not yet capable of performing its function; the will has no power over motion; all motor expressions are without knowledge or consciousness, dependent on reflex actions. He has also shown by experiments that the motor nervous irritability in the new born is very small. He has also shown by direct experiments that the irritability of the vagus, as an inhibitory nerve, is less developed in the child than adult.

This is all of especial interest and very important to know. Those experiments indicate to us where the irritation must take place to induce a convulsive attack. We are instructed that convulsions can be induced by anæmia of the brain as well as by hyperæmia. We are taught that an excess of carbonic acid gas in the blood will produce the same result.

It explains to us the long known fact that in children there is a certain disposition to convulsions. This disposition is properly not dependent on any increased irritability in the sensitive or motor system, nor in the reflex center; but it is dependent on the fact that the brain of the child is more or less involuntary, and that it consequently cannot as yet through the will effect or subdue the reflex centers. But when experience further tells us that the new-born infant is not as disposed to convulsions as the child of a few months of age, and that this fact consequently is in conflict with what was just said regarding the so-called increased reflex irritability, then comes again experimental physiology to our aid, and explains to us that the irritability of the motor nerves in the new-born infant must be very small or insignificant.

What are the causes of convulsions in general, i. e. how do they come about? Now we must admit that they come about by an irritation of the place wherein convulsions originate. Experimental physiology has shown us this place to be the medulla oblongata and the pons, or, according to Nothnagel, the latter only. An irritation here must take place; but to bring about a convulsion, must the irritation be abnormally exalted, or the irritability in the so-called convulsion center increased, or both? These conditions may occur simultaneously. The irritability may be direct, i. e., affect the convulsive center directly, or it may be an indirect or reflex irritability. Therefore, convulsions are divided into direct and indirect, central and peripheral, symptomatic and sympathetic, etc. Another category includes the so-called idiopathic convulsions; they come seemingly without motive and we are unable to discover any cause. But causes, of course, must exist, although we cannot discover them, and the more our science grows the fewer must idiopathic

convulsions be, until they are things of the past. I, therefore, do not take them up here.

My point of view being clinical, I will divide convulsions into symptomatic and sympathetic. The former corresponds to the so-called direct or central, the latter to the so called indirect or peripheral.

Symptomatic convulsions are those that take place at the beginning of a disease, or during its course, by direct irritation of the convulsive center. This generally happens as a consequence of pathological changes within the blood-vessels, hence this form of convulsions is sometimes called hæmatogenic.

Sympathetic convulsions are those that take place by some irritation of the sensitive nerves; this is conveyed to the convulsive center and a convulsion is produced.

This division of convulsions is not at all satisfactory, for, taken as a whole, several causes coöperate, as we will see hereafter.

Symptomatic convulsions are produced partially by a *disordered circulation*, and partially by a *change in the blood itself*.

Disordered circulation is the most common cause, by producing a sudden anæmia of the brain. If, for example, the circulation of the blood to the brain is suddenly arrested (i. e., in both carotid and vertebral arteries), the phenomena will be as follows: The pupils at first contract, then dilate; the jaws are closed, the eye-balls rotate upward; breathing is difficult and short, later, slow and deep; then violent general convulsions take place with loss of consciousness. If circulation is now again permitted, the subject will be restored to normal state. Such an experiment has been performed by Kussmaul and Tenner. It shows us the whole group of symptoms, and it also shows us the cause to be anæmia of the brain. This anæmia must be suddenly produced, however, to produce a convulsion. Kussmaul and Tenner have shown three things as necessary—viz., loss of blood (to brain) must be large, must occur at one time and suddenly, and the subject must be in good condition.

An anæmia of the brain that has been developed by degrees will not produce convulsions.

An anæmia of the brain to have the power of producing convulsions may be caused as follows:

(a) *A sudden loss of blood*, something we often see happen during childhood.

(b) *Sudden and severe loss of juices*, as profuse vomiting and diarrhoea.

(c) *Arterial contractility*. This certainly plays an important role, by causing anæmia of the brain. For example, psychical impressions, especially those extreme in effect, such as fright, wrath, etc.

It acts probably by its effect and influence on the vaso motor nerves, and causes arterial contractility, anæmia and, lastly, convulsions. Sauvages mentions a case where a child, while in great anger (because it did not get the food it liked), went into convulsions. Swichten reports a case where a child became frightened at a dog; afterwards the child would go into convulsions by seeing a dog, or even hearing one bark. It is also possible other causes may produce convulsions, such as fright, and this again may produce overaction of the heart, with increased flux of blood to the brain.

(d) *Compression of the skull* in infants, pressure on an extended fontanelle, pressure on the back of head in cranio-tabes may all produce anæmia of the brain (cortex), and thus convulsions occur.

(e) *Anatomical changes in the brain*, as extravasation of blood, softening, growths, etc., sometimes cause convulsions; just how it is not easy at all times to say. It may be caused by direct irritation of the convulsive center, as in hæmorrhage or growths, but the probability is that by an increased pressure anæmia takes place.

(f) During the course of disease, not infrequently there is anemia of the brain, as in hydrocephalus, acute brain diseases, inflammations, fevers, etc.

Just as anæmia of the brain may cause convulsions, so may hyperæmia of the brain be the cause, if not direct, nevertheless indirect. An explanation will probably be in its place, as it may seem curious that two conditions, so different from each other, may produce the same phenomena. Let us consider the circulation, especially that of the lymph within the brain. Through late researches by Key and Retzius, so essentially valuable,

we have received an accurate knowledge of the lymphatic vessels in the brain and its membranes. We now know that there is an uninterrupted connection between the sub-arachnoidal spaces of the brain and spinal column, the epi-cerebral spaces and ventricles, and also between the peri-vascular spaces within the brain. Key and Retzius have shown us, that the lymph vessels follow the blood-vessels in the large hemispheres, as well as in the large ganglia (optic thalamus, corpora striata, etc.). The skull forms a closed and firm cavity that will not expand; the contents consist of the brain, blood and lymph vessels. When the circulation is normal, the same amount passes continually to the brain.

In the infant where the sutures and fontanelles are yet open, and where the skull may be somewhat expanded as well as reduced, the arterial circulation can be increased somewhat, without increased pressure; so may the venous circulation exceed the arterial without diminishing the pressure within the brain. As the heart's systole and pulse-waves advance must an expansion of the arteries occur, and for the time being an increased amount of blood enters; likewise during expiration the venous blood is hindered and a slight venous stasis results. When the skull forms a firm space and the brain cannot be essentially compressed, then a regulator for the circulation must be found; this regulator is the cerebro-spinal fluid. When the blood current rises, or the venous is hindered, then the cerebro-spinal fluid yields and gives room to the blood. This can only take place within a certain degree; if the arterial current is considerable, then the fluid in the perivascular spaces cannot yield sufficiently. What happens then? Counterpressure, and the consequence is that the capillaries are compressed.

The greater the hyperæmia, the greater the counterpressure; the blood wave cannot be forced to its terminus; consequently, there is a lack of blood in the capillaries—an anæmia in the cortex of the brain, and large ganglia is the result.

During venous stasis, the fluid around the venous and perivascular spaces is driven back, the pressure on and about the perivascular spaces increases, the arterial wave diminishes, the blood is not driven forward, and thus it happens that the arterial

blood supply is diminished; and thus it is clear that there is an anæmia of the capillaries of the brain. This gives us an explanation of experiments conducted by Landois showing that a venous stasis may produce a convulsion. We see, also, that hyperæmia and a venous stasis may produce the same result, viz., anæmia of the brain and then convulsions as a result.

A flux to the brain occurs in children very often, more so than in adults. The flux is dependent on the number of heart contractions. We all know how easily and suddenly the function of the heart is aroused; an emotion, a fever, and the heart is at once overactive, usually the younger the child the greater the action. This fact is in harmony with Soltman's view that the younger the child the less developed is that system of nerves (vagus) whose function is inhibitory.

We know how easy a sudden fluxion to the brain may be produced in children, as in many acute diseases, especially fevers, and we have seen that this hyperæmia can produce anæmia of the cortex of the brain; then we can easily understand why convulsions in similar cases do occur, and also how they are produced.

The ease with which hyperæmia in the infant is produced would probably more often bring disturbing brain symptoms, were it not compensated for by the possibility of the skull expanding through the open sutures and fontanelles, which has just been mentioned.

Venous hyperæmia of the brain occurs quite often in children, as in croup and laryngismus stridulus; also in diseases of the lungs, whether hereditary, as atelectesis, or acquired, in hereditary and acquired defects in the heart, etc.

In all these and similar cases venous hyperæmia may cause anæmia in the cortex of the brain. This may also occur during disturbed digestion, constipation with considerable generation of gas in the intestines; this forces the diaphragm upwards, and impedes the circulation of blood to and from the brain. I also wish to mention that a protracted fluxion of the brain produces a venous congestion in it, because the capillary vessels become compressed from the condensed cerebro-spinal fluid and the *vis a tergo* in the veins is diminished, and the blood flows more slowly.

The second group of symptomatic convulsions are those that

are caused by a *change in the blood*. This is often combined with disturbances in the circulation, hence this group may have several co-operating causes. Among the changes in the blood that cause or promote convulsions are: 1st. *An abnormally increased temperature*. That this plays an important role among the causes of convulsion, especially during childhood, is scarcely questionable. The explanation of this fact is that the excitability in the nerve element increases by an increased temperature.

In a sudden case of fever in a child, especially an infant, it is often announced by a convulsion. This corresponds to the chill in the adult. Especially is this the case in the croupous inflammations of the lungs and pleura. It is not only the increased temperature that in a suddenly developed fever produces convulsions, but increased body heat. There is as a rule an increased action of the heart; this produces a fluxion to the brain, and this again, as we have just seen, many result in a convulsion. In the croupous pneumonia it is probably the impeded respiration that produces venous hyperæmia, and this in proportion contributes to a convulsion. Just so in pleurisy; but here there is intense pain which no doubt contributes to convulsions, and this may be partially explained by reflex action. The same is the case, for example, in otitis accompanied with convulsions, where certainly the pain is of great importance. We see, consequently, that in similar cases many causes co-operate to produce convulsions. Such is the case with another kind of blood change, viz.:

2nd. Infectious Diseases. Scarlatina, morbilli, variola, cerebro-spinal meningitis, intermittent fever, etc., are not infrequently accompanied with convulsions during the early stages. In those diseases we must assume that it is the qualitative blood change that reacts on the nervous system. But even if this is the chief cause *i. e.*, the changed condition of the blood, producing disturbed nutrition in the nervous system, we must still recognize other causes, viz.: increased temperature, which appears early, also disturbed circulation within the brain.

Consequently we see that many causes may co-operate to produce convulsions during the commencement of fevers. These convulsions occurring during later stages are most frequently

caused by an anæmia of the brain from some cause or another, as just mentioned.

3d. Direct intoxication, through mineral and vegetable poisons; to these belong lead poisoning, atropia poisoning, tobacco enema, poisonous sponges, alcohol,* etc. To this class belongs poisoning through the inhalation of gases such as carbonic acid gas.

4th. Such changes in the blood, where a poison is taken up from the system, as in pyæmia, septicæmia, puerperal infection, etc. In these cases, as in direct poisoning, we must accept that the poison acts as an irritant to the nervous system, perhaps directly on the convulsive center. Here belongs carbonic acid gas poisoning, caused by a disturbed respiration, and the blood thus becomes overcharged with carbonic acid; this irritates the nervous system, and a convulsion results. In uræmic convulsions, whether they are caused by an increased amount of excrementitious material irritating the nervous system, or if caused by an acute brain disease producing an anæmia of the cortex of the brain is not yet decided.

Here we may also mention changes in the milk of nurses and mothers; we may, indeed, include intoxications produced by sudden effects through the mind, viz: fear, wrath, etc., which in the child may produce convulsions. In what the change or intoxication of the milk depends is not known, but many cases of convulsions in children, originating from such causes are on record. Petit Rordel mentions a case where the mother, shortly after being suddenly angry, put her child to her breast with the consequence of convulsions. Bouchut mentions a similar case. Underwood has reported a case where a man was to make a visit to a family; just as he came inside the door he fell to the floor and died. The lady became very frightened, soon after put her six months old child to her breast, and within one hour the child had convulsions, alternating with coma, lasting thirty-six hours, then recovered. Saltman mentions a case somewhat similar.

The *Sympathetic* convulsions are those that are produced by

* Solman mentions a case where an infant raised by a wet nurse had frequent attacks for eight days without finding a cause. Finally a bottle of brandy was found in her bed. She was at once discharged and a new one accepted, and the child had no more convulsions.

reflex action. They may be produced by any irritation of the sensitive nerves of the skin or mucous membrane. They are very common during childhood, and probably induced by an increased irritability of the sensitive nerves, partially through a diminished or less developed power of the reflex inhibitory center of the brain.

Here belong, for instance, convulsions occurring from burns of the skin, large superficial ulcers, extensive intertrigo, etc., pointed foreign bodies that irritate the nerves of the skin as needles. Siebenhaar mentions a case of a child, nine years old, suffering from convulsions who was ordered a bath, when on taking off the clothing, a needle was discovered penetrating into the small of the back, deep in the flesh. The needle was removed, and convulsions ceased.

Irritations of the membrane of the ear, whether inflammatory or a foreign body in the auditory canal, may produce convulsions; also foreign bodies in the nasal passages, and, furthermore, an irritation of the kidneys or ureter, through renal calculi, not uncommon in children. Demme mentions a case of a boy, one year old, with hereditary constrictions of the urethra, causing great obstruction in urinating, which often produced convulsions. The urethra was dilated, and the convulsions disappeared.

The largest proportion of convulsions, however, are produced through an irritation of the mucous membrane of the stomach and intestines. That this cause produces convulsions is one of the oldest-known and acknowledged facts. We see them produced by dyspepsia, colics, intestinal catarrhs, gastro-enteritis, constipation, etc. In practice, we find many cases where the cause is hard to explain but after a thorough search we can generally find some ailment in the intestines; most common is chronic catarrh. This treated and improved, the convulsions will disappear. Especially has this been the case in rachitic children in my practice.

One question much disputed, and yet an open one, is, can convulsions be produced by irritation from worms? Most authors regard it as perfectly natural that such a case exists. At one time it was regarded as the cause in most cases of convulsions; other authors, though few, deny any relation between

the presence of worms and convulsions. To judge between them is difficult, for on the one side we see cases happen where children had worms, which through anthelmintics had been destroyed, and no convulsions followed. I have seen a child who discharged 100, others 50, 60 and 70 worms, without ever having had convulsions. On the other hand, cases are reported where we must accept, that convulsions are produced by their presence in the intestinal canal, and consequent irritation of the sensitive nerves.

Cormak mentions a case in a boy, seven and a half years of age, otherwise perfectly healthy, suddenly attacked with convulsions, which were cured after administering calomel and santolin, which discharged many ascarides. I have not seen a similar case. I therefore believe that we can not altogether disregard worms as one of the causes of convulsions, but we must also be careful in a case of convulsions, where worms are inhabiting the canal, to not too suddenly come to a conclusion, but search after other causes, which otherwise may be passed by.

Another question that also takes us back to antiquity, and on which modern thought yet can not agree is, can convulsions be produced by dentition or not? Among the old authors the majority acknowledge it to be a common cause, but we find many claiming convulsions to be independent of dentition, and thus, we may say, stands the question to-day. Most claim that convulsions may be produced by difficult dentition; others deny it. Dentition is said to be a physiological process, and as such could or should not cause a dangerous complaint. Let it be so. Is there not any other physiological process that is accompanied with danger to an individual? Our very first entrance into this world gives us at once an answer to this question. Dentition is, however, a process, that, in some children, without doubt, is combined with pain, and this at a period when reflex action is easily produced; and that partially through the last branches of the dental nerves, and partially through the end nerves in the swollen gums, convulsions by reflection may be produced, appears to me not at all impossible. Physiology, indeed, tells us that reflex actions are easier produced from the end nerves than from the trunk; and, when we see cases, just before teething, otherwise healthy, with repeated attacks coming on, ceasing

protruded, only possible to begin again while cutting another tooth, and impossible to find any other cause, then I, at least, can not neglect to place dentition and convulsions with each other as cause and effect. I remember a case, now many years since, and then I was convinced, that dentition could not cause convulsions. I was called in consultation by one of my colleagues to see a child who had had several attacks. The parents, especially the father, were very calm, saying that the convulsions now, just as once before, probably depended on dentition. I did not believe it, but made as thorough search as I could for the cause, but in vain. After one or two days, during which time the convulsions continued, a tooth protruded, and the convulsions ceased. Other cases could be cited. What otherwise concerns dentition, we should remember that hereditary disposition plays also an important part. What, then, will not produce convulsions in one child, may very easily in another. It is very difficult, however, to certainly decide a case of convulsions as to cause, as many causes may be found. The one nearest at hand is irritation of the mucous membrane of the intestine, as it is just at this time that dentition takes place, when intestinal catarrhs are so common, and that this alone is capable of producing convulsions, we have just shown.

I mentioned disposition and hereditary tendency to convulsions. This topic also deserves to be touched upon in connection with causes to convulsions. Without doubt there is in certain families a disposition to convulsions of a hereditary nature. On what this disposition, this "convulsability," depends, we know not; whether from a disturbed nutrition within the nervous system, or some anomaly in the blood that affects the vaso-motor system; but it is, nevertheless, a fact supported by many reported cases. Duclos reports that a married lady, in her childhood, had suffered from convulsions up to her seventh year. They then ceased, but there remained a deviation in her mouth, and the eyelid of the left eye was prolapsed. She had had nine brothers and sisters, of whom six died in convulsions. She was herself mother to ten children; all have had convulsions; six died; of these, five were under two years of age, and the sixth at three years.

Her first-born got convulsions after nursing when the mother shortly before had been angry.

Lastly, in childhood, and, of course, in older patients, cases of convulsions may occur which are simulated.—*Hygiea-Medicinsk och Farmaceutisk Mauadskrift*.

EXPERIMENTAL STUDIES ON INTOXICATION WITH MERCURY.

M. Prevost has published his experiments on the action of mercury on the several organs. To avoid the irritation of the gastro-intestinal tube by mercury introduced into the stomach, the hypodermic injections have been recommended. But Prevost proves that these injections, wherever they are made under the skin, will provoke the same lesions in the intestines. These lesions are especially found in the cœcum and the large intestines, the mucous membrane of which is found to be in a state of hyperæmia, and covered by ecchymotic plaques. Walter Hay has recently proved that hypodermic injections of mercury cause irritation at the point of injection, with reflex irritation on the secretory and vaso-motor activity of the intestinal canal, if the injection is made in a part of the skin which is in nervous relation with the abdominal contents. Mercurial albuminuria has been thoroughly studied, and researches have shown a calcification of the tubuli in the kidneys. Experiments have been made on several animals, and recently, in a case of poisoning by acid nitrate of mercury, the same phenomena have been found. In certain cases of hydrargyrism, death is caused by total suppression of the renal functions. Osseous alterations have also been found to be due to application of mercury, and M. Prevost found decalcification of the bones which provoked, in some cases, mobility of the epiphyses of the long bones on their diaphyses. To prove that decalcification of the long bones exists, and goes hand-in-hand with the calcification of the tubuli in the kidneys, he extirpates one tibia of the animal before giving the mercury.—*L'Union Médicale*.

Society Reports.

ARTICLE VI.

AMERICAN SURGICAL ASSOCIATION.

MR. EDITOR:—The fourth annual session of the American Surgical Association convened in Cincinnati, Thursday, May 31st, ult., with S. D. Gross, M.D.; LL.D., D.C.L., Oxon, LL.D., Cantab (emeritus) in the chair, and a few number of members present. The president delivered the following address:

FELLOW-MEMBERS OF THE AMERICAN SURGICAL ASSOCIATION: Allow me, as your presiding officer, to congratulate you upon your safe arrival, and to extend to you a cordial welcome to the Queen City, the center of medical education in the Buckeye State, the residence of eminent medical teachers and practitioners, and repository of the ashes of great medical men, who, during their laborious lives, added luster to the profession and left behind them undying names. We have come here not as pleasure-seekers, but as a great body of men bent on earnest work in the interests of our great and noble calling. It is a source of rejoicing to me, as I am sure it is to you, that since our last meeting our ranks have not been invaded by the fell destroyer. On that occasion it was my melancholy duty to announce to you the demise of some of our fellows, all men of distinction and great usefulness. The meeting upon which we are about to enter cannot fail, if we may judge from our programme, to be of unusual interest and that our deliberations will be conducted with that celerity and harmony of feeling which has hitherto characterized it, I am safe in predicting. Allow me in concluding this brief salutatory, to direct your attention to a proposed alteration of the constitution, to increase the number of fellows from 100 to

150. The change is an important one and merits your serious consideration. I also respectfully suggest that the acting council be increased from four to seven, so as to impart greater efficiency to its work. Finally, it appears to me wise to take action upon any proposed amendments to the constitution and by-laws, on the last day of every session, instead of letting them lie over for one year as now provided for.

Minutes were read and adopted.

In the absence of Prof. E. Beverly, San Francisco, Cal. and Prof. H. F. Campbell, of University of Virginia, members of council, the chair appointed Prof. E. M. Moore, of Rochester, N. Y.

Treasurer reported \$2,070.21 on hand.

On motion, council organized to act on applications for membership.

Prof. Gross being both President and first on the programme to read, gave way to the following paper:

I. Have we any Therapeutic Means as Proven by Experiment, which Directly Affect the Local Processes of Inflammation?

By C. B. Nancrede, M. D. Philadelphia. He spoke of blood-letting, more particularly of local blood-letting, the reckless abandonment of which he deplored.

Prof. Campbell, of Augusta, Ga., spoke of it as the lost art; said if it were not for blood, we would have no swelling. Recommended his students to use the lancet much more than formerly. In puerperal convulsions, morphine first then the lancet. He had not bled one-half so often as he should have done.

Dr. Moore said: Paper has much merit, especially as to its scientific exposition of the *modus operandi* of blood-letting.

Dr. Busch who had made his fame from the frequent and successful use of the lancet, fell from its use in pneumonia. In an epidemic of pneumonia where he had practiced, the lancet was used in every case and every patient died; changed to whisky, beef tea and quinine and almost the exact reverse was the case. With perfect diagnosis and absence of anything like typhoid symptoms, the lancet should be used more frequently.

Dr. Post, N. Y.: Can not attach too much importance to gravity in inflammation. Blood-letting should be repudiated

in asthenic troubles. In persons of good habits and traumatic conditions, blood-letting is of much use.

Dr. Kinlon, of Charleston, S. C.: Blood-letting has always disappointed me in inflammatory affections and I raise my voice against it.

Prof. Gunn, of Chicago, said: "There are inflammations, and there are inflammations." Must be careful as to diagnosis. In some cases blood-letting is beneficial, others not.

Prof. Brakes, Nashville, Tenn.: In many cases general blood-letting is successful in local disorders and vice versa.

Prof. Gregory, St. Louis: Blood-letting locally is rational in local inflammation. Cannot tell just what vein to open. Is not useful in idiopathic inflammation, but is an injury. We should meet and combat the cause of inflammation. I am one of the old doctors, who come from the time of bleeding. Have seen epidemics of pneumonia where many have died under the lancet, have seen those who have died without the lancet.

Prof. Dawson, Cincinnati: If it be so great a remedy, why have we abandoned it? Does any one here bleed a patient a year? Why advocate what we do not practice? Drugs will accomplish the same thing.

Dr. Nancrede: I have not been thoroughly understood. Have said diagnosis must be accurate, and advised bleeding shortly after or while stasis had taken place. The instant there is tissue change then it is too late. I spoke of surgical inflammation, did not speak of pneumonia etc. I did not recommend blood-letting when heart is feeble. The loss of a night's sleep, a slight diarrhoea, reduces blood-cells one-twentieth. I have no doubt mine are reduced as much from reading this paper. It requires only a few hours to replace them.

II. Lister's System of Antiseptic Wound-treatment, *versus* its Modifications. By B. A. Watson, Jersey City, N. J.

This paper took decided grounds in favor of Listerism.

A number of fellows spoke against Listerism and said that it was not followed by a majority of the practitioners in their cities.

Dr. Nancrede proposed to follow the essentials of Listerism some time yet.

Dr. Prince, Jacksonville, Ills., spoke in favor of Listerism.

Dr. McGraw, Detroit, reported a case which he had lost by carbolic acid poisoning.

Dr. Dawson, Cincinnati: The great thing that Lister has done is to teach us cleanliness. To Dr. T. M. Markoe belongs great credit for giving us thorough drainage.

III. Re-amputation at the Hip Joint; Secondary Hæmorrhage; Ligation of the Primitive Iliac Artery; Remarks on Ligations; Re-amputation at the Hip Joint for Osteo-Myleitis: Hæmorrhage on 6th day; Ligation of Primitive Iliac, by John H. Packard, Philadelphia. The common femoral was tied at the time of the disarticulation.

Dr. Jerfield, Boston, spoke in favor of learning to tie arteries "with the eyes toward heaven."

Dr. Post thought this very hazardous.

Dr. Connor, Cincinnati, reported a case where he had amputated in the upper one-third of thigh, found bone diseased, split down, nucleated the bone and left a good stump. Man recovered nicely. Thought by the use of Furneaux Jordan's method of amputation, the Esmarch bandage could be used, and there was no use for it in ligature of iliac.

IV. An anomalous case of Traumatic Aneurism. By Dr. J. Richardson, New Orleans. Bullet wound shot on inner side of leg; ball passed upward and out. Six months later, noticed enlargement between cicatrices. Employed compression, then ligated femoral under carbolic acid spray. Two years later, found circulation stopped in foot and leg, and mummification setting in. Amputated above middle of thigh, followed by gangrene. The photographs of the aneurism were shown. Writer dwells on "failure of leg to effect coagulation." No communication of aneurism with artery below. Dark matter of blood. Expressed the opinion that it was an arterio-venous aneurism. Read an additional paper on "Trephine in connection with Emphysema."

Dr. J. Ewing Mears, Philadelphia, spoke of his manner of passing drainage tubes through thoracic abscesses by means of hernia needles.

Dr. Campbell, Augusta, Ga., thought the trephine a very awkward instrument to use on ribs: and recommended the chain saw.

Dr. Richardson said: Had recommended trephine only in traumatic emphysema with fistula. Trephine, a very neat instrument and operation made in less than a minute. The chain saw jogged too much. Trephine should be about large enough to take up all the rib.

Adjourned to the amphitheater of the Medical College of Ohio, where Dr. Packard showed his method of ligating the primitive iliac, also his method of colotomy.

Association went into executive session for the election of new Fellows.

V. "On the Value of Early and Late Operations in Surgery." By S. D. Gross, Philadelphia. Spoke of the value of early operations in tumors and malignant growths. Importance of surgical interference in morbid growths. He said that diagnosis was a high art, and the majority of the profession were not sufficiently good in it. He thought the word charlatan was not used widely enough in its sense. There are many knaves who treat malignant growths. In carcinoma, the knife cannot be used too early. All benign growths of rapid growths cannot be excised too soon. In case of repeated operation on carcinoma of the breast and its return, the knife should sweep away all the involved tissue; and the wound be treated on general principles.

Dr. Port spoke of the importance of removing growths not malignant. He recommended the removal of all such growths where not contra-indicated.

Dr. Moore said he really had nothing to say. There was nothing additional to say.

Dr. Gregory, of St. Louis: In tumors the change of cells was greater in the early part of the development than in the later. Irritation does not originate tumors. I am as successful in going into the peritoneum, as those I read of. Delay operations when the peritoneum is involved, otherwise operate as early as possible.

Dr. Gross did not speak further.

VI. Dislocation of the Astragalus. By Basil Morris, Washington. Spoke of the rarity of the case. Gave history of its occurrence in his own person and read answers from surgeons in regard to their experience and cases. Gave the authorities as

advising ; some reduction, some exsection, others attempts at reduction, then if failure excision. In his case, reduction was effected. He recommended gentleness in manipulation for reduction.

Drs. Moore, Werst, Dawson and Gunn had seen cases which they reported.

VII. "Excision of the Tarsus." By Dr. P. S. Connor, Cincinnati. He compared excision favorably with amputation. Claimed that it would tend to eradicate the disease and that the patient after recovery would have a very serviceable foot. The subject was treated with spirit and thoroughness, and the Fellows declined to discuss a subject already so admirably handled.

VIII. Trephining the Sternum for Removing Foreign Bodies from the Anterior Mediastinum. By S. Marks, Milwaukee, Wis. Related a case of gun-shot injury received during the late war. Ball remained behind the sternum until '70, when it was first discovered and removed by trephining. The pulsation of the pericardium could be plainly seen at the end of the operation. An interesting point was, that it showed how long foreign bodies could be borne near the heart.

IX. "Some questions with reference to Intracapsular Fracture of the Femur." By E. M. Moore, Rochester, N. Y. This elaborate paper was the result of extended observations on the human subject, a large number of specimens being produced by the reader.

X. "Fractures of the Neck of the Femur, with special reference to bony union of the Intra-Capsular Fracture." By N. Senn, Milwaukee, Wis. This gentleman produced a paper prodigious as to its amount of patient work and scholarship. It was replete with experiments on lower animals and decidedly "German" in its character. This and the preceding paper were discussed together, and, while all praised the skill and determined energy of Dr. Senn, yet they gave the preference rather to the paper of Dr. Moore, so full of practicability. Each paper after its kind, was certainly difficult to excel.

Dr. Moore said he had seen a case where a vascular frenum extended upon the head of the femur sufficient to give it enough nutrition to cause bony union, but he thought the case of Dr.

Senn's, reported to be a case of bony union, was not surgically a fracture within the capsule.

Dr. Campbell thought that the neck of the femur would not unite if it was held together. Thought we had better retain the old treatment of these "old broken hips."

Drs. Moore and Senn answered their critics briefly.

XI. "Nephrectomy for Carcinoma and partial Cholecystectomy for Gall Stone in the same subject." By S. W. Gross. A report of a case in brief and pithy style.

XII. "Operation for Permanent Closure of the Jaws. By J. Ewing Mears, Phila. Suggested excision of portion of ramus, condyloid and coronoid processes.

Dr. McGuire reported a similar case.

Dr. Port spoke of mechanical motion when there was any degree of extension. When there was no movement at all, then incision must be made.

XIII. "Removal of Meckel's Ganglion for relief of Trifacial Neuralgia with report of cases." By A. Vanderveer, Albany, N. Y. Reported three cases in which the operation was done; and wrote in its favor.

XIV. Dr. Campbell spoke in favor of the removal of the superior dental nerve.

Dr. Connor, in favor of resection of the infraorbital nerve.

Dr. Dawson reported a case of a young man, where he had removed nerves a half a dozen different times, each time followed by relief of pain for a season, then recurrence in a different quarter.

Dr. Vanderveer said that he had so far failed to find a reason why Meckel's ganglion should be removed, but the authorities recommended it, and he thought no one had ever had better success than that had in one of his cases.

XV. "Splint for extension of Wrist Joint." By J. M. Barton, Phila. Exhibited and explained.

XVI. "A Rectal Obturator." The instrument was exhibited and a paper read on the subject.

The Committee on Nominations, after expressing their deep regret at the positive refusal of Prof. Gross to act longer as pres-

ident, reported the following names for election to the respective offices :

President, Dr. E. M. Moore, N. Y.

First Vice President, Dr. W. W. Dawson, Cincinnati.

Second Vice President, Dr. C. H. Maston, Alabama.

Secretary, Dr. J. R. Weist, Richmond, Ind.

Treasurer, Dr. J. H. Packard, Philadelphia.

Recorder, Dr. J. Ewing Mears, Philadelphia.

Council, Dr. P. S. Connor, Cincinnati.

Recommended the next meeting to be held at Washington, D. C., on the Wednesday preceding the meeting of the American Medical Association.

Report adopted.

A motion to have the applications for fellowship made directly to the Association, not through Council, lost.

On motion a vote of thanks was tendered the Reception Committee of Cincinnati.

On motion it was resolved that the Association have a banquet at each annual meeting at its own expense.

Drs. N. P. Dandridge, Cincinnati, Christ. Fenger, Chicago, W. E. Taylor, California, W. F. Peck, Davenport, Iowa, J. W. McCairn, Pittsburgh, and Y. M. Markoe, N. Y. were declared elected Fellows of the Association.

Dr. Kinlon moved that the names of the gentlemen signed to a paper criticizing the Code of Ethics of the American Medical Association, be referred to Council with instructions to report before the adjournment of this meeting. Carried.

Council reported as follows :

Resolved: That the Secretary be instructed to address to each of the members alleged to have criticized the Code of Ethics of the American Medical Association, requesting them, if the allegation be true, to resign. Carried unanimously.

A motion to increase the limit of the number of Fellows from 100 to 150, was lost.

A resolution of respect and esteem for the retiring president was offered by Dr. Dawson. Carried.

The President made the following closing remarks: I congratulate you on the success of the 4th annual meeting of the

American Surgical Association. I have tried to do all with impartiality. Now, as I am about to retire, I am sure the Association will be safe in the hands of my successor. I have no greater ambition than to hold your affection and esteem. I believe we have formed a successful institution and grounded on the right principle, and when I die, I hope that you will carry it on well. God bless you. Remain faithful to the interests of your profession to the end.

Adjourned, June 2d, 6 p. m.

The American Surgical Association is a noble-looking body of men. One can not look at its assembly and not see men of intellect. They are conservative surgeons. Not 50 per cent. of the applicants for fellowship were successful and a motion to increase the number was lost unanimously. The first 100 is not yet filled.

At a banquet given on the 2d day of the session, at the Gibson House, there were not a half dozen who were not members. A mentionable feature was the respect paid by the association to its president. Your correspondent has never seen its equal. The papers were so long and numerous as to preclude the possibility of much discussion, otherwise the 4th annual session of the American Association was regarded an eminent success.

E. S. MCKEE, M. D.

June 2, 1883.

Cincinnati.

ARTICLE VII.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society held its semi-monthly meeting on the evening of June 4th, with Dr. D. W. Graham, the president, in the chair.

The following gentlemen were elected to full membership: Dr. N. S. Davis, Jr., Dr. J. M. Pilsbury, Dr. D. F. MacPherson, Dr. N. E. Rice.

After which Dr. R. Tilly exhibited under the microscope numerous bacteria removed from a (decayed) tooth while the patient was present before the members. The patient was deaf

and the bacteria were present very extensively in his mouth. The doctor stated that the fungi may pierce the body of the teeth, but in the case before us this evening, he was unable to decide positively whether their presence was the cause or effect of the dental decomposition, but inclined to the former opinion. He had recently discovered them while treating the patient for the deafness with which he is afflicted.

In the discussion which followed Dr. W. W. Allport participated. He said the old theory for decayed teeth was acids acting on the lime of the teeth, but later theories now advanced as causes for dental decay were the "chemical," the "vital chemical," the "parasitical" and "electrical" theories. Instances were cited under his observation where the eye-sight and hearing were affected by decayed teeth, and the filling in a tooth, and where the removal of one or the other exciting cause remedied the eye or ear trouble.

Dr. Alonzo Bryan then presented an interesting paper on the subject of "Stammering," which is recognized as a functional disease. Several pathological points of paramount interest were brought to notice, in which the literature is meager, and the following extracts upon this topic were taken :

"This pathological condition may occur in persons of perfect physical integrity. It is the result of mal-habit, or mal-education of the nerve centers, presiding either immediately or remotely over the organs of articulation. The act of stammering usually consists in the attempt of a person to articulate an elementary sound while the vocal organs remain in the position proper for the utterance of the sound which precedes it in the same syllable. A traumatic lesion of the mouth may temporarily disable a person in certain forms of utterance. If so, these cases are confined usually to a single letter, and often to only a single word. The most stammerers are capable of stammering upon every letter of the alphabet and upon every word in the language. At times momentary vertigo may ensue, and tetanic action of a number of the facial muscles may occur simultaneously in the extreme stammerer. Stammering occurs vastly more often in children than in adults, more frequently, too, in the male, and more persistently in those of small intellectual cali-

ber, and disappears more readily in persons of high or good intellectual capacity. Fear will enhance the difficulties of the stammerer, and so will decrease of the rapidity of nervous conduction, as cold. During the hot weather of summer, stammerers are often greatly improved. Buoyancy of spirits affords relief. Consciousness of the presence of superior and arrogant persons plunges the common stammerer into difficulty. The presence of a benign superior aids him. Vigorous mental excitement usually aids and relieves the stammerer. A sense of heartfelt joy often does away, temporarily, with all difficulty of utterance. Illustrative examples of lingual impediments were cited, of lecturers, of young ladies, and of himself, who used to be an inveterate stammerer, which were dwelt upon quite minutely. Among the causes of stammering mentioned were antecedent disease and pertussis; children recovering from extreme adynamia in acute diseases are liable to stammer afterwards. A large proportion of stammerers are made by imitating others, who mimic a sufferer from the malady. A large number take on their trouble by unconscious imitation. A child may imitate its brother, sister or parent. Cases that supervene in this manner are not so inveterate as those that arise through ridicule or through a malicious purpose. Children born of stammering parents usually stammer with great facility. In this it may be of transient duration. Stammering is not analagous to *aphasia* due to cerebral lesion.

The treatment carried out intelligently should usually be successful. The tendency is to spontaneous recovery. Total non-interference should be adopted in treating young children who have acquired the impediment by unconscious imitation. The child should be placed in circumstances of absolute freedom of general growth, physically and mentally. A warm climate enhances recovery by increasing the velocity of nervous condition. The self-confidence of a child should be cultivated, and it should be removed from all opportunity to imitate another stammerer. It should be taught music, dancing and calisthenic exercises.

The intelligent adult stammerer should be drilled in elementary articulation. His general culture should be carried to an ex-

treme extent. A high form of will should be required on the part of a patient.

After its conclusion Dr. E. G. A. Trimble asked the author of the paper if stammering was apt to be accompanied by neurasthenia, and if, in hereditary cases, the hesitation generally occurred on the vowels or consonants. Answered: No relation to neurasthenia; and, secondly, that the hesitation most often occurred on the vowel sounds.

Dr. J. H. Etheridge thought well of the pathology as stated in the paper, and asked if singing a word would ease them, or to stop short and count 5, 15, or 20? Answered negatively.

A vote of thanks was tendered to Dr. Bryan, after which the society adjourned.

A goodly number of visitors were present, who stopped while en route to the American Medical Association, and afterward accompanied the party of delegates from this society to Cleveland.

L. H. M.

THE ninth annual meeting of the Tri-State Medical Association, will be held in Indianapolis, September 18th, 19th, and 20th. The work is already far advanced and the title of each paper should be sent in at once. Papers must not exceed 25 minutes.

It is also the rule that each physician who registers must be a member of a local or State society in good repute. All such are invited.

Notice of papers or cases to be presented may be sent to the chairman of the committee on programme, Dr. J. L. Thompson, Indianapolis; to the Secretary, Dr. G. W. Burton, Mitchell, Ind. or to the President Dr. Wm. Porter, St. Louis.

Reviews and Book Notices.

ARTICLE VIII.—THE PATHOLOGY AND TREATMENT OF DISEASES OF THE OVARIES. By Lawson Tait. Fourth edition.

In this fourth edition, the author gives his peculiar views in the most pronounced manner. In the first two pages we are taught that the ovarian dermoid tumor is an analogue to the zoöspore, and that the Graaffian follicle should rather be named oögonium. Every botanist as well as every zoölogist and physiologist will energetically protest against this biological conglomerate. After having given in the next chapter the most accurate anatomical description of the ovaries and its surroundings we have ever read in any language, the author rides his hobby-horse i. e. menstruation. The author is well aware that there are accessory ovaries numbering sometimes from 6 to 8, and he most minutely describes the function of the fallopian tubes as oöducts, but he more than astonishes us in giving his theory, i. e. that the fallopian tubes, by encircling the ovary at the time of the ripening of the ovum, produce the phenomena called menstruation. The author peremptorily denies the similarity to menstruation of the rut in animals; and he silently admits that he has never practically observed the phenomena of repeated œstrus at distinct intervals in domesticated animals. In the next chapter the displacement of the ovaries is treated, and everybody knows that the author is always in favor of extirpation as the *sine quâ non*. His audacity in extirpating ovaries and tubes has been followed by success so far as known, but in cases of chronic suppurative inflammation he would rather abstain from operating. His ideas on extra-uterine pregnancy are properly conceived. The chapter on oöphoritis and peri-oöphoritis is classical; and we are sorry to find in it sentences

like this: "for humanly speaking I shall always look upon you as her saviour." The author concedes in this chapter that small cystic ovaries cause hæmorrhage in the uterus. In the "conditions which simulate ovarian tumors," the author repeats his biological reasonings in the above named characteristic manner. but there are many points of interest and truth. The practical part of this and the next chapter on ovariectomy, forms the basis of the book. There the author shows his thorough knowledge of topographical anatomy and his large surgical experience. There is a minute description of all the essential points in this widely executed operation. American priority in ovariectomy and oöphorectomy is denied, but due credit given to McDowell and Battey. The last chapter on "recent extensions of abdominal tumors," is rather eccentric, the author favoring exploration of the pelvic cavity in all cases of abdominal diseases not due to malignant growths, and he gives the characteristic opinion that "risk of life in chronic ill-health is no argument against operation." Pelvic suppuration, as the author calls it, is treated by abdominal section and drainage, but the author's experience on this point seems to be rather short and not successful. The book has a fine exterior and the print is large and distinct. The author should attend to the correct printing of the German book-titles. The book has so many interesting points that even the most scrupulous reader will lay it aside with entire satisfaction. O. S.

ARTICLE IX.—FIRST AID TO THE INJURED. By PETER SHEPHERD, M.D., Surgeon-Major, Army Medical Department; Associate of the Order of St. John of Jerusalem. Revised by Bowdich Morton, M.D. Cloth, pp. 88. New York: G. P. Putnam's Sons. Chicago, Jansen, McClurg & Co.

This little work is gotten up in nearly the same style as the Student's Aid Series. The author states in the preface, that there is no attempt made to popularize medicine and surgery; the object is to furnish a few plain rules, which may enable any one to act in cases of injury or sudden illness, pending the arrival of professional help.

The professional help called would sometimes be able to treat

such cases more intelligently, if familiar with the contents of this book.

The first part of the book is devoted to an outline of anatomy and physiology.

In speaking of the ribs, the statement is made that the lower five are termed floating or false ribs, having no attachment in front. We believe the two lower ribs only are, properly speaking, termed floating ribs, "having no attachment in front." The three just above the floating ribs are attached in front to the true ribs by means of cartilage. The lower five are false ribs. The membrana tympani is called the drum of the ear. The membrana tympani is the head of the drum, tympanum, or middle ear, but is not itself alone the drum or middle ear.

With these exceptions, the book is very correct. The latter half of the work contains much valuable matter, which might be read over many times with advantage to the reader.

J. T. M.

ARTICLE X.—POTT'S DISEASE: ITS PATHOLOGY AND MECHANICAL TREATMENT, with Remarks on Rotary Lateral Curvature. By NEWTON M. SHAFFER, M.D., Surgeon in Charge of the New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital, New York. Cloth, pp. 82. New York: G. P. Putnam's Sons. Chicago: Jansen, McClurg & Co. Price \$1.00.

This is a plain, concise, and practical work on Pott's Disease. The author gives the classes, causes, and symptoms of the disease, in a clear style. The treatment is based on the pathology, which is prominently considered. Attention is often called to the similarity of Pott's disease and osteitis of the hip- or knee-joint. Hence the same rule should govern the treatment in both.

The author has been treating his patients having Pott's disease with an antero-posterior support, using a chin-piece to steady the head, when the disease is in the cervical or upper dorsal regions. The advantages of this over the plaster jacket are many, namely: it is lighter, and more comfortable to the wearer; it is easier adjusted; there is no need of suspension in application; pressure is applied just where it is needed most; respiration and transpira-

tion are not interfered with, and cleanliness of the body is better secured.

Surgeons who are still treating Pott's Disease with the plaster jacket should read this book, and give the antero-posterior support a trial. We think if they would do so, the plaster jacket would be soon discarded entirely in the treatment of this disease.

J. T. M.

ARTICLE XI.—TREATMENT OF VARICOCELE BY EXCISION OF REDUNDANT SCROTUM. Illustrated by New Instruments and an Account of Fifteen Successful Cases. By M. H. HENRY, A.M., M.D., Late Surgeon-in-Chief to the State Emigrant Hospitals, Ward's Island, New York; Fellow of the New York Academy of Medicine, etc., etc. Cloth, pp. 24. New York: J. H. Vail & Co.

Of all operations for the radical cure of varicocele, the one described by the author of this little book, experience shows, is the safest and best.

The author has devised a clamp or scrotal forceps to be used in this operation. A fold of the scrotum is held firmly by the instrument during the operation. As much of this fold as is thought necessary is removed with the knife or scissors. The clamp keeps the edges of the wound in place, and is not removed till sutures are inserted.

By using the clamp, not only can the operation be done very quickly, as the testicles do not become exposed, or interfere with the introduction of sutures, but the author claims he can get union by first intention in the majority of cases. Thus the instrument appears to be a very useful one, especially would it be so to a surgeon who often performs this operation.

The pathology of varicocele receives its share of attention. Members of the profession to whom this operation is new would do well to peruse this work.

J. T. M.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

- Variola. Samuel A. Powers.
 Diseases of the Ovaries. Lawson Tait. Wm. Wood & Co. W. T. Keener.
 Diseases of Women. Frisch. Wm. Wood & Co. W. T. Keener.
 Diagnosis of Ovarian Cysts by Examination of their Contents. Garrigues.
 Wm. Wood & Co. W. T. Keener.
 Report Michigan State Board of Health, Lansing, Mich.
 Illinois State Medical Society Report, 1882.
 Medical and Surgical History of the War of the Rebellion. Part Third.
 Vol. Second. Surgical History. First issue.
 Therapeutic Handbook of the Pharmacopœia. Wm. Wood & Co. W. T.
 Keener.
 The Microscope and Its Revelations. Carpenter. Wm. Wood & Co. W.
 T. Keener.
 How to Examine the Chest. Samuel West. Philadelphia, Blakeston's Son
 & Co. Chicago, W. T. Keener.
 The American Citizen's Manual. W. C. Ford. N. Y., G. P. Putnam's
 Sons.
 Alcoholic Inebriety from a Medical Standpoint. Joseph Parish. Phila.,
 P. Blakeston's Son & Co.
 Aids to Medicine. C. Armand Semple. N. Y., G. P. Putnam's sons.
 First Annual Report of the Provincial Board of Health of Ontario, Year
 1882. Toronto, C. B. Robinson.
 Treatise on Insanity in its Medical Relations. Wm. A. Hammond. N. Y.,
 D. Appleton & Co. Jansen, McClurg & Co.
 Insanity: Its Causes and Prevention. Henry Putnam's Sons. N. Y.,
 G. P. Putnam's sons. Jansen McClurg & Co.
 Diseases of the Throat. Carl Seiler. Phila., H. C. Lea's Son & Co.
 Jansen, McClurg & Co.
 Taylor's Medical Jurisprudence. Third edition. Vols. I. and II. Phila.,
 H. C. Lea's Son & Co. Jansen, McClurg & Co.
 Biddle's Materia Medica. Ninth edition. P. Blackston, Son & Co. W.
 T. Keener.
 Practitioner's Ready Reference Book. R. J. Dunglison. Phila., Blakes-
 ton, Son & Co. W. T. Keener.
 Bacteria and the Germ Theory of Disease. H. Gradle. W. T. Keener.

- Relations of Micro-organisms to Disease. W. T. Belfield. N. Y., Wm. Wood & Co. W. T. Keener.
- Examination of Modern Chemicals. Hoffman & Power. Phila., H. C. Lea's Son & Co. Jansen, McClurg & Co.
- Diseases of the Male Sexual Organs. Samuel W. Gross. Henry C. Lea's Son & Co.
- Diseases of the Eye. Second edition. Edw. Nettleship. Henry C. Lea's Son & Co. Jansen, McClurg & Co.
- In-Knee and Its Relation to Rickets. W. J. Little. N. Y., D. Appleton & Co. Jansen, McClurg & Co.
- Lectures on Medical Nursing. J. W. Anderson. N. Y., MacMillan & Co. W. T. Keener.
- Auscultation and Percussion. Manual of Austin Flint. Third edition. Phila., Henry C. Lea's Son & Co. Jansen, McClurg & Co.
- Handbook of Electro-Therapeutics. Wilhelm Erb. Trans. by Putzel. N. Y., Wm. Wood & Co. W. T. Keener.
- International Encyclopædia of Surgery. Vol. III. N. Y., Wm. Wood & Co. W. T. Keener.

PAMPHLETS.

- Clinical Lecture on the Treatment of Caries of the Lumbar Vertebrae. M. J. Roberts.
- Ergotin and Pelletierine. Ch. Tauret.
- History of Health Work in Indiana. Thad. M. Stevens.
- What is Disease. W. Godfrey Dyas.
- Clinical Notes on Opium Addiction. J. B. Matteson.
- Cough of Remote Origin. W. E. Cassellbery.
- Homicide and Suicide in Philadelphia, 1871 to 1881. Jno. G. Lee.
- Hints on the Treatment of Some Parasitic Skin Diseases. Geo. H. Rohé.
- Treatment of Various Forms of Acne. Geo. H. Rohé.
- Pemphigus and Some Diseases Liable to be Mistaken for It. G. H. Rohé.
- The Prevalence of Pneumonia in Chicago in 1882. N. S. Davis.
- General Paralysis of the Insane. T. F. McFarland.
- The Hypodermic Treatment of Syphilis. A. Lagorio.
- The Treatment of Bubo. G. Frank Lydston.

Translations from Foreign Exchanges.

BY O. STROINSKI, M.D., CHICAGO.

COTOINE.

Cotoine, recently detected in the cota bark by Sabot, when given to healthy persons in doses of $\frac{1}{2}$ gram., increases the appetite without producing constipation. It is easily dissolved in the stomach, but slowly in the alkaline fluid of the intestines. It will be found in the urine, giving a yellow-colored deposit by alkalies, a blood-red by nitric acid, and a yellowish-brown by sulphuric acid. Albertoni (*Annali. Universali Di. Med. e Chir.*) reported his results with cotoine in a series of 100 cases, the most of his patients being insane or very emacated persons. To acquire correct results he made strict rules, regulating the nourishment, temperature, etc. He comes to the following conclusions: Cotoine is indicated in diarrhoea, complicating the various forms of insanity. It is especially the neuro paralytic diarrhoeas which can be artifically produced by depriving the intestinal tube of its nerves. It is proved that in the diarrhoea of the insane, the lessened faculty of resorption is the principal point, and also in chronic intestinal catarrh; in which cases cotoine is a good remedy. In diarrhoea of cachectic or marasmic persons, in malaria, and in the diarrhoea of nurslings, cotoine is indicated, as it has also given good results in pellagra. It is given in doses of 15 to 20 ctgrm., in different cases, every four hours. The best form is the powder, but it must be the genuine article. Albertoni thinks that it has a specific influence on the epithelial coat of the intestines, modifying the physiological action of the latter. He compares the whole intestinal tract to a gland whose epithelium attracts the digested matter, and con-

ducts it into the blood. If the physiological action of the epithelium is lessened, as in intestinal catarrh, etc., the epithelium does not only absorb nothing, but it admits a filtration of substances from the blood. Cotoine acts directly on the epithelium, and it produces thus very good effects.—*Med. Chir. Centralblatt.*

JEQUIRITY-OPHTHALMIA. A NEW INFECTIOUS DISEASE.

L. De Wecker first called the attention of ophthalmologists to the effects of a decoction of the seed of *abrus pectorius* on the conjunctiva of the eye. The fact that in cases of long existing chronic inflammation, an acute attack removes the old exudation by resorption of the latter, is well known to the medical world, but there has never been a better proof of this fact than the effects of jequirity on the conjunctiva. Since the inoculation of acute blenorrhagic conjunctivitis in cases of trachoma, etc., which is a very prompt but at the same time dangerous proceeding, several remedies have been used to provoke an acute inflammation on the conjunctiva, but without success. Jequirity has been known in Brazil for a long time, and the reports of Brazilian physicians show the dangerous character of this remedy, if it is not well regulated by experts. Of the seeds, reduced to a fine powder, about 3 grammes are macerated in 500 l.l. of cold water for 24 hours, then the same quantity of hot water is added, and the whole filtered. The fluid is applied with a brush to the lids three times every second day, until inflammation is produced. By close observation, it has been determined that this inflammation shows a different character from all the other typical inflammations of the conjunctiva—that it is, in fact, an inflammation *sui generis*. Dr. Tattler, in making repeated experiments and microscopical examinations, has proved that the inflammation is caused by micro-organisms contained in the seeds of jequirity. This experimental study has been confirmed by the contagious character of the inflammation. All persons whose eyes came in contact with the instruments used in the experiments, or with persons treated with jequirity, have been likewise attacked by conjunctival inflammation.—*Wiener Med. Wochenschrift.*

CONVALLARIA.

Linné says in his *Flora Lapponica*: “ne inventionem nimiam introducamus levi mutatione *convallariam* decimus aliorum *Lilium convalliam*” (the lily of the valley). This plant was known in the dark ages and it is mentioned in the Bible. Long before Christ the flower was much praised among the then savage Germans and it has at this day many high-sounding German names. After the conversion of the Germans to Christianity, the flower got the name of the mother of Christ (Mary's flower), an indication of the respect in which the flower was at that time held. In the year 1029 A. D., Bishop Falbertius said: The feast of the birth of the holy Maria should be celebrated especially by the virgins, for on that day is annually born (is the birth) the *lilium convallium*. And Saint George, the noble Hungarian, is painted in full armor, having conquered the dragon with the *lilium convallium*. In those dark ages the *convallaria* was regarded as a regular panacea and the decoction of it was called *aqua aurea* (golden water). In the castle of Wolfartsweiler there is secreted a large treasure, to recover which there appears every seventh year a lady carrying a bunch of *convallaria*. Of all the grandeur of this highly praised plant there remained in the last century only its value as a snuff. But this day of railroads and telephones has brought again to light the ancient glory of *convallaria*, and the pens of many professors are busy in describing its wonderful effects. Do you wish to know who you are, then look about you on the faces of your friends. The *convallaria* belongs to the same class as *atreptopus*, *paris*, *smilax* and *rascus*, whose medical effects are null. Rest in peace dear *convallaria*.—*Med. Chir. Central-Blatt*.

COMPRESSION OF THE OVARY IN RELATION TO HYSTERICAL ATTACKS.

The experiments of Charcot at Paris, with this object in view, have not been regarded as very important and truthful, but the following case corroborates his views: The patient, a girl twenty-three years of age, was the daughter of nervous and uræmic parents. She menstruated when fourteen years of age, with severe pains, which increased monthly, and in her seventeenth

year she had hystero-epileptic attacks. After a certain time the attacks disappeared, but she passed now through all the symptoms characteristic of hysterical persons. The uterus was enlarged and strongly anteflexed, and there was in the anterior wall a fibroid tumor of the size of a walnut, causing complete retention of the urine. The anteflexion was treated by inserting an intra-uterine stem pessary of glass. One day the patient fell from a chair and the intrauterine pessary was broken to hundreds of pieces. Two large pieces were removed, but it was impossible to extract the many small fragments of glass which were imbedded in the mucosa. From this time on, the patient had severe nervous attacks. She did not recognize her parents, and she thought the physician to be one of the servants, writing at the same time to him and complaining about his neglecting her. At other times she left her bed, and she played the most difficult compositions on the piano. In one of these attacks there was made a bimanual compression over the left ovary, and the patient suddenly became conscious, recognizing everybody around her, and speaking in the usual polite manner, while before she had been very abusive.—*Memorabilien*,

PARAMYO-KLONUS MULTIPLEX.

The patient, 10 years of age, is of healthy parents. When 4 years of age, for years after measles, he suffered from dyspeptic troubles. Two years ago he had contraction of the right arm, especially on the flexors and extensors of the carpus, and the patient was not able to use this hand in writing, etc. Later, the left arm was attacked. The present status is as follows: No irregularity on the part of the cerebral nerves, skin intact, no symptoms of muscular atrophy or hypertrophy. No peculiar sensibility, a pressure on the skull or vertebral column and no sign of ataxia. In observing the undressed boy there is noticed a peculiar muscular movement of the upper extremities. The supinator longus and the biceps present a perpetual change of contraction and relaxation of these muscles. In the supinator there are counted 40 contractions in 30 seconds. The pectoralis major is also slightly contracted on the left side. On the lower extremities there is the same peculiar change. The muscles af-

fects in these parts are the vastus internus, gracialis, semitendinosus and semimembranosus. In the latter are counted 36 contractions in 15 seconds. By active movement the normal state appears immediately. Cold air or pressure on the muscles increased the contraction considerably. The muscles acted normally when electricity was applied. The patient was treated with the galvanic current and the success was apparent after including the ganglion supremum in the current and by the internal use of valerianate of zinc.—*Aerztl. Intel. Bl.*

THOMSEN'S DISEASE.

In the society of physicians at Berlin, Prof. Westphal presented two cases of this very rare disease. It is shown by tonic contractions of the muscles and the patients feel a tetanic stiffness in the extremities, increased by complicated movements. Passive motion is easily executed and there is no disturbance in sensation. This anomaly of motion is extended to muscles provided by the cerebral nerves and there is stiffness of the tongue, difficulty in opening the eyes, and muscular tension in masticating. The sphincters are free. The most prominent symptom in this disease is the greatly increased volume of all the muscles of the body, so that the patients look like athletes. But the muscular power not being increased, the patients are usually looked upon as lazy people, and they have as a consequence been badly treated in the German army. The tonic contractions are very slow and in tapping the biceps one will see the muscle contract to a very large bundle, but it will recede very slowly. The pathology and the therapy of this disease are entirely unknown, but the disease is apparently hereditary in character.—*Wiener Med. Wochenschr.*

ANGUILLULA STERCORATIS AND ANGUILLULA INTESTINALIS.

Cuckart, at Leipsic, detected anguillula, which had been first described as causing diarrhoea in Cochinchina, in the faeces of a man who had lived for a long time in Mexico and Atchin. He transferred the young worms to a breeding apparatus, and after thirty hours there were developed the full-grown worms, provided with a complete genital apparatus. The animals copu-

late outside the intestines, and the females produce ova and embryos, which readily escape, the young worms measuring from 0.2 to 0.5 mm. After throwing off the skin, they have the characteristic form of rhabditis, and they take the form of strangylids, distinguished from the former by the tail and æsophagus. But this generation does not develop, and it is most probable that they have to be introduced into the intestines to reproduce the characteristic form of rhabditis. It is further probable that this generation will not be developed to *anguillula stercoratis*, but to *anguillula intestinalis*, and that the former has to be stricken from the class of poro-parasites inhabiting the human body.—*St. Petersburg Med. Wochenschrift*.

ENCEPHALIC HÆMORRHAGE FROM LESIONS OF THE MEDULLA OBLONGATA.

M. Brown-Séquard reported in the Biological Society of Paris that he had seen lately several cases of hæmorrhages into the lung, liver and heart, caused by traumatism of the brain in consequence of a shock to the posterior part of the cranium. He has seen the great trunks of the arteries and veins of the lung to contract rapidly, and to drive the blood into the capillaries so as to burst these vessels. The reverse will be seen by section of the inferior part of the medulla clavicalis in the pigeon producing instantly hæmorrhage at the end of the bulbar portion. The pathogeny of these accidents is under the influence of the vaso-motor nerves. In the same manner must be explained cerebral hæmorrhage appearing suddenly in several points, and which it is difficult to attribute to a simultaneous rupture of a great number of miliary aneurisms.—*Le Progre Médical*.

MALIGNANT TUMORS OF THE THYROID GLAND.

The mortality of operations upon malignant tumors of the thyroid gland is very large. In all cases where there is the least suspicion that the vessels of the throat or the trachea or æsophagus are diseased, all these parts have to be extirpated. Of 34 patients operated on, 22 died right after operation, and there is but a single case known where there was no relapse after 16 months. The diagnosis of malignant growths in the thyroid

gland is very difficult, and it is often only at the operation that the diagnosis can be made correctly. The sarcoma, as well as the carcinoma and the adenoma, are found in the thyroid gland, and there are very often mixed growths. That excision of so important parts as the larynx is often followed by death, is not surprising.—*Correspondenzblatt f. Schweizer Aerzte.*

URETHRO-RECTAL FISTULA, WITH NARROWING OF THE URETHRA AND INTERSTITIAL NEPHRITIS.

The patient, twenty-nine years of age, had suffered three times from blenorrhagia and narrowing of the urethra. He had difficulty in passing urine, with cystitis and orchitis. Afterward, he noticed that the urine passed through the rectal orifice, as well as through the urethra, and once he could urinate through the anus for ten hours. To pass a sound into the rectal fistula was impossible. Poultices on the abdomen and warm baths accelerated the flow of urine through the urethra. All at once, there was complete retention of urine, and shortly afterward he died. At the autopsy, there was found a fistula in the rectum, 3 cm. from the anus, which communicated with the bladder. The urethra had three narrowed points; one in the spongy portion of the canal, and two others in the membranous portion. In the bladder were profound ulcerations. Both kidneys were atrophied, and the intestines black with congestions.—*France Médicale.*

COLD ABSCESS OF THE TONGUE

The patient has a round spheroid tumor, of the size of a nut, on the right side of the tongue. The tumor commences 2 inches from the point of the tongue, is not discolored, and seems to adhere to the mucosa. Being absolutely painless it is easy to palpate the tumor and even to knead it. There is no impression left upon or by the tests and there is no trouble either in mastication or in deglutition. The tumor was first noticed 4 months ago and it grew rapidly for the first month, but since that time it has been stationary. It was thought to be a hydatid cyst, but puncture revealed a sack filled with fetid pus. The sack was excised and the wound closed by 4 sutures healing per primam.—*France Médicale.*

THE CAUSE OF ICTERUS NEONATORUM.

Birch-Hirshfeld, after having examined 600 corpses of newborn children, attributes the symptom to hepatic origin. The immediate cause is œdema in the region adjacent to the vena porta, and œdema in Glisson's capsule, producing compression of the secondary ducts of the gall-bladder. This theory is supported by Hofmeister's researches, who found, generally, biliary acids in the fluid contained in the pericardium of newborn children who died from icterus. By experimental researches, he found that pressure in the region of the vena porta produces a thickening of the blood. He maintains that the infection takes its way by the umbilical vein, and not by the umbilical artery.—*Le Frazzette Médicale*.

ATROPINE IN EPILEPSY.

In the medical society at Vienna, Dr. Lesdesdorf presented a man, forty-five years of age, who had been treated with the bromide of potassium for a long time without success. He being of healthy parents, he never had been sick until he was attacked by a bull, who threw him several feet when he fell upon his occiput. From this time on he suffered from headache, became insane, and had from six to eight epileptic attacks daily. He took the bromide of potassium for two months with apparently no effect, but when he took some powders composed of 02 oxide of zinc and 0001 of atropine, the epileptic attacks did not return.—*Med. Chir. Centralblatt*.

BOTHRIOCEPHALUS.

M. Tenneson showed in the Academy a number of pieces of bothriocephalus resembling inverted intestines. They were expelled by a man who had lived for a long time on the borders of the lake of Geneva, and whose defecations contained a number of eggs of the bothriocephalus. The pieces had the gray median genital pores, and there could be no doubt that they belonged to bothriocephalus. Pelletierine was given with success.—*Le Practicien*.

THE TREATMENT OF AMENORRHŒA IN MORPHINE-EATERS.

The morphine should be suppressed first, but that alone is not sufficient to restore menstruation. It is necessary to give the patients daily a cold douche-bath, directed to the inferior part of the trunk and to the lower extremities. Before and after the douche they must walk. They should take pills composed of extr. belladonna 0.40, and sulphate of quinine 0.60 to .40 pills, five to ten daily. After a month's treatment, the uterine isthmus should be catheterized until menstruation sets in regularly.—*Révue Médicale*.

In the last surgical congress at Berlin, Dr. Lehoenborn reported a very interesting case of gastronomy. A girl, 15 years of age, suffered from incessant vomiting, and there was a hard tumor of the size of a fist below the liver. After dissection of the abdominal walls the tumor was found to be in the stomach, and adjoining the latter there was detected a black moveable body which proved to consist of small pieces of hair mixed with mucus. The girl confessed that she had bitten off from her cue the ends of the hair to get a clear voice. Recovery was rapid without any fever.

By A. LAGORIO, M.D.

IMPERFORATE ANUS, WITH NORMAL CONFORMATION OF RECTUM AND DISCHARGE OF MECONIUM BY A RETRO-SCROTAL CUTANEOUS ORIFICE.

Imperforations of the anus are divided in three classes: 1st, Simple imperforations; 2nd, Imperforations complicated with a partial or total absence of rectum; 3d, Imperforations complicated by a deviation of rectum, opening in other parts than the anal region, and forming an anus *contre nature*. The following case, that Dr. Ramonet reports in the *Archives de Générale de Médecine* (March, 1883,) does not belong to any of the above classifications; it constitutes a new variety, interesting and valuable to know, and was never described by any author. The patient is a new-born male child, three days old. On account

of the imperforated anus he has not discharged but a very small quantity of meconium through an orifice of the size of the head of a pin situated behind the scrotal sac. Patient is quiet, is not agitated, the aspect of the face does not show any suffering; cries a little, but the cry has more expression of anger than pain. No meteorism, and no tenderness on pressure; has no vomiting temperature is normal, respiration and circulation regular.

These negative symptoms show a perfect tolerance on the part of the intestine; they singularly contrast the symptoms of an internal obstruction. The inspection of the anus shows an imperforation of this organ, with no signs of its location. The skin of the perineum is smooth, with no depressions, and without designating the median raphe. No fluctuation under the skin is detected, to show any accumulation of meconium. Pressure is made on the abdomen to press down the meconium, but nothing of diagnostic importance is elicited. On the upper and posterior part of the scrotal sac, and on the median raphe of the scrotum, exist a small opening, through which the infant has expelled a little meconium. With no little difficulty a probe is introduced in this abnormal opening, and great precaution is used in pressing it inward. It passes horizontally *under the skin*, and reaches the spot where the anus should anatomically exist. This obstacle gave the exact place of the anus. The probe is withdrawn and found covered with meconium; the index finger is pressed in front and behind along the fistulous subcutaneous tract just discovered, and a little meconial substance is forced out of the small orifice. Diagnosis now became easy and the success of a surgical intervention was no longer to be doubted. The rectum had no deviation, was well formed, terminated at the proper place with an anus covered by the skin, and that, instead of opening directly out, formed a subcutaneous tail, represented by the fistulous tract, opening under the scrotum to give exit to the meconium. No time was to be lost and an operation was decided upon. The little patient was placed on the knees of an assistant, in a lithotomy position; a grooved sound was introduced into the scrotal orifice, and pushed cautiously along the fistulous tract until obstructed in the anal region. The skin was pressed against the point of the sound, and through it was

made a longitudinal incision, from in front, backwards two centimeters long. This done, the sound was withdrawn. The finger, well oiled, was then introduced in the wound, and pushed toward the rectum. After a great effort to dilate the sphincter muscle energetically contracted, the finger passed in, and in the rectum. In operating the little finger is always to be used to dilate the sphincter, to conquer the spasm, and not withdrawn until the muscle is relaxed. The rectum now expelled a large quantity of meconium. A carbolized tampon was placed in the wound, and changed several times a day. The subcutaneous fistulous tract was left alone, and cleansed by pression and by injecting warm water, and was soon obliterated. The operation was a success.

A different operation could have been made. The fistulous tract could have been incised on a grooved sound down to the anal region, and then a circular piece of skin excised to make the anus. But the author did not think it best. Such an operation would have produced a long wound, which might have become ulcerated or gangrenous by coming in contact with the urine and fæces, and also severe danger of infiltrations of urine, and erysipelatous complication, so liable in the new-born. Lastly the following conclusions are reached :

1st. The case of imperforate anus just reported constitutes an interesting variety, to be added to the different kinds described up to date.

2d. The exit of fœcal matter by an abnormal cutaneous opening, situated in any part outside the anal region, is perfectly compatible with a normal conformation of the rectum, and does not absolutely implicate the deviation and aperture of this organ *contre nature*.

3d. In cases similar to the one reported, the surgeon will leave alone and not incise the fistulous tract ; but will use it as a conductor to make the perineal incision, which will form the anus.

HÆMETIC ORIGIN OF BRIGHT'S DISEASE.

The aim of the researches made by Prof. M. Semmola on Bright's Disease has been to demonstrate that in this disease, on

account of the suppression of the cutaneous functions the albumen of the blood undergoes a chemico-molecular alteration, and not being either assimilated or burnt, absolutely must be eliminated from the body as a substance foreign to the organism. This elimination constitutes the fundamental fact of Bright's albuminuria. Prof. Semmole in his preceding works has studied the chemical reactions capable to characterize the different albumens of the organism as to differentiate them from that of Bright. From these preceding researches, and from those more recent, the author asserts that the albumen found in the urine of Bright's disease is undoubtedly different from that found in albuminuria of a cardiac or amyloid origin. An able expert in the analysis of urines will not mistake the color of the precipitate, and will know immediately the albumen of Bright's disease, which has a particular color, already described by the author (Paris, 1867). To demonstrate the reality of the alteration of the albuminoid substances of the blood, the author has studied the degree of diffusability of the albuminoid substances in the serum of the blood and not in the urine, and has demonstrated that in Bright's albuminuria the diffusion is more or less complete according to the gravity of the disease, while in the normal state, or in other albuminurias (not of Bright's disease) the diffusion is none or very little. without any relation to the quantity of albumen eliminated in the urine. This fact leaves no doubt of the initial existence of chemico-molecular alteration of the albuminoid substances of the blood in Bright's disease, chemically indefinite. but most important, because, as the albuminoid substances are capable of a pathological diffusibility, they are incapable of the nutritive changes to which they were physiologically destined. By these considerations the author concludes that the organism eliminates these substances no longer assimilable, and that the lesion of the kidneys, a depurative organ, does not precede, but is consecutive to this forced elimination. To more confirm his results, he has extended his researches to other organic liquids besides the blood, and when Bright's disease existed he found albumen in the bile, in the sweat and in the saliva, while in other albuminurias the albumen was wanting in these liquids.

which demonstrates that, except in Bright's disease, the albumen is due to a particular local state of the renal circulation. If a hypersecretion of the sweat and of the saliva is produced artificially in a patient with Bright's disease, the albumen in the urine is diminished in accordance with its elimination by these secretions, but the quantity eliminated in twenty-four hours remains the same. The consecutive nephritis, which is the most notable anatomical character of the disease, is due to complexed causes that Prof. Semmola has already shown:

1st. Renal hyperæmia caused by the suppression of the cutaneous circulation.

2nd. Irritant action of this hyperæmia according to the excrementitious products accumulated in the blood and the dyscrasic state produced.

3rd. The continuous functional force that the kidneys must employ to liberate the organism of the albumen which has become non-assimilable and diffusible.

Some of the most eminent German professors, who before combated his theory, to-day are his warm supporters. The author thanks especially Prof. Rogedstein, whose works of comparison confirm his theory.—*Giornale Intern. Scienze Mediche*.

BACRATOSIS, OR A SPECIAL SUBLINGUAL FRIBROID PRODUCTION.

F. DeMarinis describes this affection as a hypersarcotic production, found in the oral cavity of poor and neglected children, virulent and fatal. It has never been reported nor described by any author. By the people it is called *Ranocchia*, but not having any scientific name, the author has given one derived from the Greek, for the resemblance which it has to a small frog. In its external and constitutional characters it is entirely different from Ranula. Bacratosis commences on the anterior surface and inferior extremity of the frænum of the tongue, as a tumor not larger than a lentil, or as a small pearl-whitish stain; it is not painful, giving rise to no mechanical or functional disturbance of any sort. After a month or two, this dirty pearl-whitish appearance extends in length, breadth and thickness, is either transparent or not, hard or friable, and spreads beyond the frænum on which it lies. As it increases in size, it becomes white as milk,

becomes harder, and breaks and divides in its superficies and in its edges, but it never exceeds the size of a large Lima bean; in such a state it produces the greatest possible general alterations, terminating in death.

Sometimes the primordial macula extends anteriorly, resembling a small cauliflower, or extends laterally, and never exceeds the dimensions of half a centimetre in breadth, one centimeter in length, and two or three millimeters in thickness. The children thus affected emaciate rapidly as the disease increases. The animal thermogenesis is lowered, they become extremely leant pale to a marked degree, and death finally supervenes. Bacra-tosis attacks children enjoying the best of health, although sometimes it is preceded by stomatitis, aphthæ, gastric and intestinal catarrhs or diphtheria. This disease is infective in its last stages, and then is absolutely mortal. Its infection is the same as that of cancer and of equal virulence. The skin becomes straw colored, as in other malignant diseases, the eyes are imbedded in their sockets, the nose pointed, the voice feeble, respiration is abdominal, there is vomiting, with copious and wasting diarrhœas.

DeMarinis defines this disease in its pathological nature as malignant or cancerous, but of a special type, which renders it different from the carcinomatous evolutions and forms.

The treatment consists in caustics and local antiseptics and astringents—generally tonics, cod liver oil and fresh air.—*Giornale Internazionale delle Scienze Mediche*.

SIR T. SPENCER WELLS, BART.

The queen has signified her intention to confer a baronetcy upon one of the most eminent surgeons of the day, the president of the Royal College of Surgeons—namely, Mr. Thomas Spencer Wells, of Upper Grosvenor Street, and of Colder's Hall, Hamstead Heath. This honor is officially recorded as a special acknowledgement of "the distinguished services which he has rendered to the medical profession and to humanity." The newly created baronet is the eldest son of the late Mr. William Wells, of St. Alban's, Hertfordshire, by his marriage with Harriet, daughter of the late Mr. William Wright, of East Sheen, Richmond, Surry. He was born in the year 1818, at St. Alban's,

and was educated at Trinity College, Dublin. He gained his first medical experience at the infirmary and school of medicine at Leeds, and subsequently studied in the anatomical school at Dublin and at St. Thomas' Hospital. He was admitted a member of the Royal College of Surgeons in 1841, and in 1844 was elected one of the Honorary Fellows created by the new charter. Having become an assistant surgeon in the navy he saw some active service, both afloat and ashore, before and during the Crimean war; and he was sent out in 1854-5, under the auspices of Mr. Sidney Herbert, as chief surgeon at Smyrna, and at Rankei, on the Dardanelles. Returning to England at the close of the Russian war, he devoted himself to the study of that branch of professional practice with which his name is associated—namely, ovari-women. He is not only president of the College of Surgeons—in which capacity he delivered the Hunterian oration last year,—but a Fellow of the Royal Medical and Surgical Society, and surgeon to her majesty's household; and at the third centenary of the University of Leyden he had conferred upon him the almost unique degree of an honorary M.D. He is the author of several important surgical works, especially on those improvements in operative surgery to which he has specially devoted himself. He married, in 1853, Elizabeth, daughter of the late Mr. James Wright, solicitor, of New Inn, London, and of Sydenham, Kent, by whom he has a family.—*Illustrated London News*, April 28, 1883.

EXTIRPATION OF A FIBROMA OF LEFT KIDNEY AND SUPRA RENAL CAPSULE, WEIGHING 37½ POUNDS—RECOVERY.

Dr. Reinhold Buntzel reports (*Berl. Klin. Woch.*) a case of a young woman, 33 years old, who had noticed five years ago a tumor rapidly increasing in size. It had already reached the size of a man's head, and she sought the advice of Spiegelberg, who after an examination declined to operate on account of the extremely reduced condition of the patient. Later, she consulted gynecologists and surgeons, who made examinations and explorations with no results, and each one declined to operate. Notwithstanding every sort of treatment, the tumor constantly increased; intense acute pains were felt in the left foot, radiat-

ing up the thigh. Digestive troubles came on, and the patient rapidly emaciated. The tumor now extended from the xiphoid appendix down to the superior border of the symphysis pubis, filling all the abdomen. The uterus was free and mobile. No œdema nor ageites. The urine was never albiminous. An operation was made at the request of the patient with all antiseptic precautions à la Lister. The abdominal incision extended from the xiphoid appendix to the superior border of the symphysis pubis. The tumor when laid bare presented some signs of fluctuation, and in an effort to diminish its size, was aspirated, but with no result. The hand could not be introduced behind nor below the tumor to ascertain its relations. It was detached partly with the hand and partly with the bistouri, some parts being adherent to the peritoneum, and arteries of considerable size were tied.

The growth when extirpated weighed $37\frac{1}{4}$ pounds, and was a fibroma of gigantic dimensions, which had originated in the suprarenal capsule.

The operation lasted two hours and a half. Chloroform was administered, and it was borne well until after the extirpation of the tumor, when symptoms supervened, which necessitated the suspension of the anæsthetic, a resort to artificial respiration, and some hypodermic injections of ether, etc. In four weeks the patient left the bed, and made a rapid recovery.—*Archives Générale de Médecine*.

LEAD PALSY CAUSED BY THE USE OF A HAIR-DYE.

M. Angier, professor of pathological anatomy at Lille, has had occasion to observe a case of lead poisoning, remarkable for the variety of the cause and the difficulty of its diagnosis. It was that of a female sixty-two years of age; feeble; subject to an obstinate constipation, without colic, who was gradually taken for about a year with a feebleness of the superior limbs, from the forearms to the shoulders. She was treated with several remedies without any relief, and without any knowledge of the true cause of the paralysis. When M. Angier saw the patient; the attitude of the superior members, the "wrist drop," and the complete impotency of the extensor muscles, he immediately thought

of lead palsy, and actually discovered a well-marked blue line along the edge of the gums, but there was nothing in the alimentation, in the habitation, nor in the profession of the patient, that could suggest the least suspicion as to the way in which the lead had been absorbed. At last it was discovered that the patient, for over five years, had been used to dye her hair, naturally white, with a black cosmetic, which, after an analysis by M. Schmith, was found to contain some sulphate, some iodide, and some chromate of lead. This evidently was the cause of the poisoning. The use of the dye was suspended, and after a month of treatment with sulphur baths, with iodide of potassium, and with faradization, the superior limbs regained their movements, and the general state of health was re-established.—*g. Méd. de Lille, et Par. Méd.*

PARENCHYMATOUS INJECTIONS OF HYPEROSMIC ACID IN TUMORS.

There was a case in the surgical clinic of Prof. Winiwarter, at Liege, of a man affected with a sarcoma of the size of the head of a child, situated in the right lateral region of the neck. On account of its intimate relation and adhesion to the great vessels and nerves of the neck, it was impossible to resort to extirpation. Dr Winiwarter then thought to try the effect of parenchymatous injections of hyperosmic acid (a substance used for histological purposes). For fourteen days he made a daily injection of three drops of an aqueous solution of a hundredth part of hyperosmic acid, with a Pravaz syringe. After this time, the tumor had entirely softened, and the mortified substance, changed into a serous pus, was eliminated through openings made in the skin. These incisions rapidly cicatrized, the infiltration diminished day by day, until after a month the tumor entirely disappeared. The integument that covered it remained intact. There was not the least sign of heat or inflammation, and the general state was not modified in any manner. After this, the injections of hyperosmic acid were employed with success in a sarcoma situated in the region of the shoulder (a relapse after a disarticulation of the humerus); also in a case of multiple lymphomas of the neck, and in scrofulous adenitis of the neck, and in other tumors of this sort.

In cases of carcinoma of the glands, the result was null, although a half syringeful of Pravaz of a 1 per cent. solution had been injected.

The principal advantage of hyperosmic acid seems to reside in the property of not acting on the healthy tissues, and in its having a limited action at the point of injection. Many cases of lymphoma, which before were treated for months with every possible means, with no results, disappeared under the influence of the injections of hyperosmic acid.—*Revue Médicale*.

MICROBES IN MARINE FISHES.

Ollivier and Richet have discovered, by a microscopical examination, microbes in living fishes, killed immediately after being caught; in the sea-eel, the turbot, the sea dog, the shark, the whiting, the red mullet, and in several others. Only in one fish (the sea dog) no microbes could be discovered. In one sea eel, numerous microbes were discovered in the lymphatic fluid, but none in the blood. Except in these two cases, all the parts of the organism of the fishes examined presented large quantities of bacteria. These parasites were especially numerous in the peritoneal fluid, in such amount as to render impossible the counting of them. They are less abundant in the blood than in the lymph, sometimes requiring careful attention to discern them. Most often these bacteria are bacilli, long or short, generally slender, and terminating in a spindle extremity, animated with little oscillatory movements. They are colored by the picro-carminate of ammonia and by the aniline colors. Some presented spores in the middle or at the extremity of the rods. Sometimes the spores, becoming free, were seen swimming at the side of the rods. The authors have made, with the microbes, culture experiments and experiments of occlusion; the latter have been made with paraffine melted at 140 degrees.—*Archives générale de Médecine*.

PHENIC ACID.

Van Hoyer has written a thesis with a great conviction acquired through numerous series of experiments, some of them personal. Here the principal conclusions—doses of phenic acid

with no action on the normal temperature, are sufficient to lower a febrile one, and the lowering is effected in all febricitants, as much in single phlegmasia as in the infective pyrexia. The decrease of temperature commences immediately after the absorption of the remedy; it oscillates from 1 to 3 degrees centigr. When the antipyretic action of the preceding doses is exhausted, a rigor and all the phenomena of a febrile attack comes on, in the same time the temperature arises to the primitive degree, and probably higher. When a new dose is administered in time, it may stop the attack, or prevent it. Sufficient doses to produce the full antipyretic effect, have no immediate effects on the feverish. In the beginning of the fever fifty centigr. given by the rectum are sufficient in all cases. In general the dose can be progressively increased to 2 grams at a time, and 12 grams a day. One gram given at once has been sufficient in some individuals, of a special susceptibility, to produce a thermic depression, even down to 34.5°, centigr. Such an exaggerated lowering has had no ill effects in any of the febricitants. Pulmonary congestions are to be feared and avoided. The antipyretic properties of phenic acid are to be reserved to combat the hyperthermia of the continued and intermittent fevers.—*Rundschau*.

CHLORATE OF POTASSIUM POISONING.

Four children died from the toxic effects of chlorate of potassium. The solution consisted of chlorate of potassium 7½ grains, tilia infusion 175 grains, with little syrup of orange flowers, taken at tablespoonful doses ten to fifteen minutes apart. Bronardel and L'Hôte, after a thorough judicial investigation, have reported in the *Annales de Chimie* the following conclusions: That chlorate of potassium, taken in relatively small but frequent doses, may produce such toxic effects as to produce death. That the chemical researches to find the chlorate of potassium in the organisms must be towards the finding the salt itself, which normally does not exist in the body: to find the chloride and the potassium separately, normal constituents of the organism, would be insignificant. The symptoms of poisoning are divided as following:

(a) Cutaneous phenomena, known by the appearance first of bluish stains, then cyanotic, and sometimes icteric.

(b) Gastro-intestinal derangements, produced by diarrhœa and greenish vomiting.

(c) Derangements of the urinary secretions; if the quantity of the salt taken is small, the urine increases; but if in such quantity to produce toxic symptoms, at first is diminished or arrested, and then becomes abundant, bloody and albuminous.

(d) Derangements of the nervous system, shown by collapse and coma terminating in death.

AFFECTIONS OF MENSTRUATION IN THE TYPHOID CONDITION.

Brierre de Boismont, Vogel, Gubler, Raciborshy, etc., have already studied them, but the results have been contradictory. Barthel proves, in the first place, that the menstrual period is never absent when the date of its appearance is about in the fifth day of the invasion of the disease; menses will more frequently appear when their epoch is from the sixth to the fourteenth day of the invasion; beyond this time they will be absent without exception. Amenorrhœa is most frequent in the abdominal typhoid. The character of the sanguinous discharge differs according to the state of the health. During the petechial typhus, its quantity is diminished; in relapsing fever, is increased. When, during a typhoid fever, the menstruation has been absent, there will be amenorrhœa for two to three months after. Bartbel has not noticed as frequently as Gubler the pseudo-menstrual hæmorrhages. He has valued the proportion about 3 to 5 per 100 of cases.—*St. Petersburg Medical Weekly*.

TREATMENT OF PTYALISM OF THE INSANE.

A notable fact, demonstrated by numerous observations made by Dr. E. Duiat, is the toleration of atropine by the insane. These are his conclusions: 1st, the neutral sulphate of atropine is certainly very efficacious in the treatment of the ptyalism of the insane; 2d, when it does not completely cure the salivation, it notably diminished this symptom, and if it reappears, never reaches the primitive amount; 3d, about three weeks are required to cure the sialorrhœa, and the daily dose of

the atropine is 1 to 3 milligrammes; 4th, the duration of the treatment seems to be more related to the antiquity of the sialorrhœa than to its abundance; 5th, the insane tolerate extremely well the sulphate of atropine; 6th, good results have also been obtained in cases complicated with bronchorrhœa and epilepsy. An obstinate and copious case of epiphora was also cured.—*Giornale Internazionale delle Scienze Médicale*.

RHEUMATIC OPHTHALMIA.

M. Perrin presented to the Académie de Médecine a second series of observations tending to demonstrate the existence of a conjunctivitis, or better, a purulent ophthalmia of a rheumatic nature. It has the general symptoms of a gonorrhœal ophthalmia. It appears suddenly, and progresses rapidly. The diagnosis is grave. Often its results are: ulceration of cornea and destruction of vision. What distinguishes it from gonorrhœal ophthalmia is that it appears in the absence of gonorrhœa and of purulent ophthalmia, but always after an attack of acute articular rheumatism. This observation shows that rheumatic conjunctivitis is influenced by the state of the weather; that it is more frequent in the cool nights of summer; and, that it is more often the starting point of ophthalmia epidemics in prisons, hospitals, sea vessels, etc.—*Revue Médicale*.

CHOLECYSTOTOMY.

Prof. Lœngenbeck (*Berl. Klin. Woc.*) recently extirpated a gall bladder from a chronic calculous affection of that organ. He made an incision on the external border of the right rectus muscle, and another at right angles corresponding to the anterior border of the liver. When the abdominal cavity was opened, a ligature was placed around the cystic duct, after which the gall bladder was removed. The case terminated in a good recovery.—*L'Union Médicale du Canada*.

TREATMENT OF CARIES.

Kollman has had occasion to cure four cases of caries by using frictions of black soap only. The obtained results could not be better. The first case was a caries of the sternum and of ver-

tebræ. The usual remedies mostly lauded by classical authors were used internally and externally, but with no success. The author then used inunctions of black soap, already recommended by Dr. Kapper. After a week the patient left the bed and began working. Cod liver oil was also given internally. In other three cases the success of cure was equally rapid. The inunctions were made with a sponge with 15 grams of black soap with a little water, repeated twice a week, and lasting 15 to 30 minutes each. The preferred place of application was the dorsum, from the nucha to the popliteal space of each side.—*Wiener Med. Zeitung*.

REPORT OF MARRIAGES, BIRTHS AND DEATHS IN PARIS FOR 1882.

There have been 21,411 marriages, as follows: Between young men and maidens, 17,619; between young men and widows, 1,206; between widowers and maidens, 1,710; between widowers and widows, 904. Divorced, 12. There have been 62,581 births; 31,828 males and 30,753 females. The number of deaths for 1882, was 58,702; of these 17,411 were of children below five years; the report of births was 106.6 to 100 deaths; 10,342 deaths were caused by phthisis pulmonalis; 7579 due to epidemic diseases, as follows: Typhoid fever, 3,352; small-pox, 661; measles, 1,015; scarlatina, 158; diphtheria, 2,390. The number of suicides was 767; 612 males, 155 females. Lastly, the number of still-births was 5,170.—*Le Praticien*.

EFFECTS OF MEDICINES UPON THE SECRETION OF MILK.

M. Stumpf, in *Dutsch Arch. f. Klin. Med.*, reports the following conclusions: The potassic iodide diminishes the secretion of milk; salicylic acid stimulates it. Alcohol, morphine and lead have no marked effect upon it, not more than pilocarpine. Salicylic acid increases the proportion of sugar in the milk; alcohol increases the proportion of fatty matter. Morphine, pilocarpine and lead produce none of these effects; moreover, the iodide of potassium interferes with the secretion of milk. Alcohol is not eliminated with the milk, while the lead and the salicylic acid are so eliminated, in very small proportion.—*Revue Médicale*.

Selections.

ADDRESS BY DR. A. L. GIHON ON STATE MEDICINE. AMERICAN MEDICAL ASSOCIATION, Cleveland, June 6.

Superficial observers see in the question which has arisen in the State Medical Society, of New York, only an attempt to break down the guards which hedge in the kingship of our profession. They have, indeed, proclaimed afar that the time-honored traditions of the guild are to be ignored, and the right hand of fellowship given to the accursed unbeliever. A year has passed since this question arose, and the dignified body of which we form a part evaded meeting the issue face to face. A few voices were raised in explanation, but they were drowned in the cry: "Crucify him, crucify him! he breaks bread with a homœopath!" The august fathers of the Association frowned their displeasure, and the venerable puppets of antiquity were taken down from their dusty niches and displayed to exorcise this new demon of the nineteenth century. Outside the halls animated *ex parte* statements were circulated, and a thousand delegates went away believing that a few individuals in the city of New York, mainly specialists, for purposes of personal profit, were advocating the license to consult and confer with avowed homœopaths—this and nothing more. Since then the matter has acquired a newspaper notoriety, and it is blazoned to the world as a fact, that the delegates of the State and county medical societies of New York have disqualified themselves for association with us, because they have sanctioned the formal recognition of homœopaths in clinical conference—and the popular sympathy of the profession has been aroused against these mercenary innovators. It is, of course, the business of the Judicial

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Council "to take cognizance of and decide all questions of an ethical or judicial character that may arise in connection with the Association;" but every member of the Association has an equal interest with these twenty-one in the inquiry into the causes which have induced some of the most exemplary members of the profession to their course. Is it, as alleged, that the code of ethics is an antiquated piece of verbosity? Does it really accomplish what it professed? Undoubtedly its purport was the exclusion from professional fellowship of all but those who are entitled to it by their intelligence, education, professional skill and acquirements, and that fearless probity that doth become a man. Has it done this? Does it do it to-day? Are there intelligent, educated, skillful, and upright men in the profession because of the code, or in spite of it? It is unquestionably true there are no homœopaths in the American Medical Association, but are there any allopaths there? Does it say "Brother" only to those who are fit to wear the mantle of the wise physician? These are questions for the Association to ask itself—and primarily it is for the State Medicine Section in its purview over medical education to discuss calmly, fearlessly, and thoroughly—and to go with its conclusions and announce them to the Association, however unpalatable or unpopular.

I do not propose at this time any formal criticism or arraignment of the code of ethics. Practically three lines only are the shibboleth which the elect are required to utter. "No one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma." Prior to this it is stated that "a regular medical education is presumptive evidence of professional abilities and acquirements;" but you may read the fifteen pages of the code in vain for the definition of what constitutes "a regular medical education," and it is to this I now propose especially to limit my inquiry—whether, while straining at the gnat in the twelfth, thirteenth, and fourteenth lines of section 1, article 4, we have not swallowed a camel in the other eleven.

Before all, however, it is proper that I should satisfy you of my own right to thus sit in judgment, and for this I must first explain that the conditions for admission into the medical corps

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of the navy are not of any exceptional or exclusive character, beyond the limitation of age between a minimum of twenty-one and a maximum of twenty-six, but are merely such as should be fulfilled by any young man who is certified in classic diction, by seven or more distinguished professional elders, to be *doctus in arte medica*—learned in medicine. The pre-requisites of respectability of character and correctness of deportment established by testimonials from citizens of known probity ought not to be considered superfluous even for the matriculant, while the modest scholastic acquirements insisted upon, rarely extending beyond a rudimentary familiarity with orthography, grammar, geography, and arithmetic, are not a tittle of what ought to be necessary preliminaries to the study of the first bone. The possession of a degree is not required, as it undoubtedly ought to be, and would be, did it carry with it any assurance of professional qualification—the code of ethics to the contrary notwithstanding. Why a degree, however regular in origin, is not considered satisfactory evidence of professional qualification, I expect to abundantly illustrate in this paper. Furthermore, the catholic liberty to compete for any position under the government has not allowed the board to decline to accept the candidacy of any individual claiming the ability to practice our art, and accordingly we have examined graduates of eclectic colleges and homœopathic colleges, as well as those who did not graduate at any college, who were thus permitted to stand on the same footing with other possessors of sheets of parchment, containing their names in a form they would not recognize and in a language they could not interpret. Though all such *irregulars* have failed to pass on examination, it is but just to state that the files of the department will show that they had no lack of peers in ignorance among the alumni of institutions of the most renowned name and unassailable regularity; and I fail to see how the board in any way countenanced these practitioners of any exclusive dogma, or lowered the prestige of our own exclusive possession of the only true faith, by consenting to demonstrate to these pretenders that they were really ignorant and incompetent.

I have selected from my notes samples of the replies of

twenty-five candidates—*doctores*, all of them—men certified to be learned in that noblest of all the sciences which engage the human intellect. I have endeavored to range them over as wide a field of inquiry as possible to show that it was not on abstruse or theoretical points on which the deficiencies were manifested. I have taken them from the graduates of schools in every section of the country, and those of established reputation, in order to prove that no one school, however exalted its rank, can claim exemption from the charge of having graduated grossly illiterate and incompetent men; and that diplomas have been sold, not cheaply and openly, as by Paine and his fellows, but still for a price, that price nominally two full courses of lectures—meaning two full sets of tickets, a matriculation and a graduation fee. I cannot, of course, say how many of these candidates actually fulfilled their implied obligation to attend lectures by sitting wearily on benches listening to discourses that must have been totally unintelligible to most of them, because I am not unjust enough to intimate that their professors did not honestly and faithfully fulfill their part by lecturing, but I do declare that their words fell like idle wind upon hearers such as these, and that the dolt who sat there throughout the course, or a part of it, or who did not even sit there but bought the ticket, issued forth, a full fledged doctor, the peer of the brightest, most industrious and most zealous student in the class. Some of the revelations of these examinations would be amusing were it not for the lamentable fact that many of their authors have for years been intrusted with the lives of their fellow beings, and this by the authority of the most respectable regular medical colleges in the United States.

To begin with the original seat of medical learning in this country. A graduate of one of the great schools, whose diploma was five years old, who had been recently prepared for examination, and whose demeanor evidenced the high opinion he held of his own abilities, stated that “the corpus callosum is that part of the dura mater which separates the cerebrum from the cerebellum”; that “the vertebral artery communicates with the cavernous sinus”; that “the membranous part of the urethra is below the triangular ligament, which is an extension of Gimbernat’s

ligament"; and that "pneumothrax is a collection of pus in the chest."

A second from the same institution, four years graduated, informed us that "the principal muscles of the larynx are the vocal cords"; that "the one-seventieth of a drop of hydrocyanic acid is the dose for an adult, and the tenth of that the proper quantity for a child"; that "the boiling point of Fahrenheit is about 300 degrees, that of the Centigrade scale is not so high, and that of Reaumer higher"; that he "could not tell what the zero of Fahrenheit was without having the other scales" before him; and that "the normal temperature of the human body is from 112° to 140°."

From a sister school in the same city came a gentleman well provided with testimonials of his social, literary and professional qualifications for the Naval Medical Corps, who stated that he did not remember the country nor the language of Hippocrates," that "Galen lived before him," and "Virgil died in the fifteenth century of the Christian era."

It was a graduate of this same school, who, indeed, brought letters to me from an esteemed friend, and deservedly distinguished physician in Philadelphia, who, having absented himself several days during his examination, on his return announced to the president that he had been ill with "cholera infantum," and gravely reiterated the statement, when, with some astonishment, I repeated the inquiry. * * *

A representative from a New England school announced that "phosphorus burns and makes nitrogen gas;" that "the crepitant rhoncus occurs whenever a membrane becomes dry;" and as a part of his academic education, that "Plymouth was settled by Columbus, who gave the town its name;" and that each State and Territory has one Senator, who is a man of great influence; one of this great influential body having, in fact, indorsed this learned doctor's competency to assume the care and responsibility of the sick of the Navy. * * *

A graduate of another deservedly celebrated New York school announced that "Galen introduced vaccination or inoculation in the seventeenth century," and that Aristotle was some ancient philosopher who wrote a book," probably intending that "mas-

ter-piece' " which naughty youths delight to read, while still another New England M.D. explained that "the conditions which would render bronchotomy necessary would be where a foreign body has lodged in one of the bronchial tubes. I know of but one method of performing it, and it is to cut down carefully, being guided by the physical signs and your anatomy, and after severing the bronchial tube in a longitudinal direction, I would remove the foreign body, and carefully close up the wound;" that an "astringent is a medicine which corrugates or contracts the tissues;" and that "to determine accurately whether a person be dead or not, a knowledge of anatomy and physiology is essential. One of the surest signs of death is complete cessation of the heart's action, accompanied with a cold surface of the skin, a blueness of the lips and fingers, and a *coldness of the teeth*."

These examples were not especially collected for my present purpose. I have merely used such as I had casually jotted down on my memoranda. The notes of my colleagues, and the archives of the Bureau of Medicine and Surgery can supply thousands of instances of professional incapacity where I have noted a hundred, and my successors of to-day upon the Board are having the same experience. Within a week, one wrote me that "the comic opera and minstrel performances are nothing compared to the Board entertainments." Ridiculous errors in orthography, inexcusable in a day laborer in this land of boasted educational facilities, are so common that one might believe correct spelling to be a refinement of culture. "What the hell has spelling to do with the practice of medicine?" demanded an irate member of Congress of the chief of the Bureau, Dr. Whelan, on being shown his protegee's written work, and doubtless so thought the trustees of a charitable institution, widely known, who admitted into its resident medical staff, after competitive examination, a gentleman, the graduate from a university, who, two years subsequently, gave the board the following written evidence of his literary acquirements: *immergencies, attact, thare, redy, vigitable, xertion, urin, pluracy, deadly knight-shade, and expulsion of its contence*. Without questioning that there are intellectual giants, who achieve greatness in certain careers, though unable to spell at all, it may be doubted whether the average mind accustomed to write *scas-*

sity, and *orful*, and *inturlec*, and *aurora epeleptica*, in total ignorance of their etymological significance, can ever succeed in comprehending the language which has come to be technical in every department of our science, and only errors such as these, and not mere phonetic mistakes, have, of course, been taken into account. Indeed, we did not decline to examine the candidate who addressed his letter to the *Navel mediclebord*, and subscribed himself, *Yours respectively*.

Of 1,141 candidates for the medical corps in the thirty years since 1853, only three hundred and seventy, or about thirty-two per cent., have been accepted. * * * *

Mr. Chairman : The time has come when this Association must be up and doing. A few medical schools have undertaken the reform, but the movement that has been inaugurated, notably by Harvard, will avail little, so long as the Association unconcernedly witnesses and indirectly countenances the wholesale manufacture of doctors elsewhere—by accepting their membership without question of their competence. The time has come when something more than paper bulwarks shall be considered defense for our orthodox stronghold, and proper partitions sufficient to separate the sheep from the goats. The time has come for us to act, and it is eminently proper that the section in State medicine shall be the scene of action. The discussion in New York has made it impossible for us to remain indifferent spectators. I trust that no member of this section has been misled into believing that any of the distinguished men who have taken part in this agitation have asked for anything that involves, in the least degree, any concession to the claims of homeœopathy, allopathy, or any other exclusive dogma ; that none of them have suggested, advocated, or desired any arrangement that can provide for or permit the joint treatment in any case by themselves and homeœopaths, or any other paths. They have, however, claimed the right to give their opinion to any one who asks for it and is willing to pay for it—to tell any sick person what he thinks of his case, and what he considers ought to be done. In this, they give no sanction to the “irregular,” whoever he may be, who has sought their advice, even though this irregular may be even wiser than that regular who castrates in orchitis, and gives his puerperal

woman a Russian bath. The very fact of his advice having been sought is an admission on the part of the irregular that he has done wrong or knows not what to do, and if, as alleged, these irregulars have not sought these consultations, then none will be, and the storm is but a tempest in a teapot. It is for you, however, to determine decisively whether you will place under the ban the man whose only offense has been to say to one of these irregulars, "You are doing wrong," or will exclude from the ranks of the profession that one of your distinguished colleagues in New York, who, when called in consultation in a case of difficult labor, requiring instrumental interference, did not stop to examine the diploma of the attending physician, but went to work, finding him an exceedingly expert assistant, and learned, when the patient had been rescued from danger, that he had been co-operating with a homeopath; or will threaten the young road surgeon, who, at the close of the meeting at St. Paul, asked me whether he should operate in a case of caries of the tibia in a poor woman at a station where the only physician was a homeopath, "Do it if you dare. You shall never cross our threshold if you do. Let her die first."

But I am only repeating a trite, thrice told tale. The necessity for reform in medical education is undeniable. Let us begin the work of reformation. If the American Medical Association is something more than a convivial assembly—if it is sitting here as a senate in serious deliberation as to the interests of the profession—it can no longer ignore this question. Years ago your excellent committee, Drs. Davis, Toner, and Weatherby, and the committee of the Medical Society of the State of New York, Drs. Squibb, Eliot, and Bradford, provided for raising the standard of preliminary education required of medical students by compelling preceptors to exclude from their offices all who fail to receive the certificate of a properly constituted board of censors, but the colleges must be coerced into doing their share. Harvard and the University of Pennsylvania will fight a hopeless battle if they are without allies.

It is for you to say to every one of these great schools and famous teachers, as well as to the petty schools and their tyros in teaching, you must, and at once, set the example of reform;

require a preliminary, scholastic training of your matriculants ; appoint examining boards who shall have no pecuniary interest in the size of your graduating classes ; make your examinations in part written, to remain on record as evidence of the candidate's ability or lack of it ; and insist upon a practical familiarity of the novice with the tools of his art, its drugs, and apparatus and instruments. For a while there will be a falling off in revenue, but the code of ethics denounces the prostitution of our calling for sordid purposes. And what more mercenary spectacle can there be than that witnessed at the close of a college session, when, with blessings and music, and big boquets, a new battallion of doctors marches forth commissioned to guard the most solemn responsibilities humanity offers.

In furtherence of these objects, I beg to offer the following resolutions, to be referred to the Association, should the section on State medicine give them its approval.

Resolved, That the section in State medicine urges upon the Association the necessity for at once taking steps to exclude unqualified members from the profession by refusing fellowship to illiterate, ignorant and incompetent graduates.

Resolved, That the Association be recommended to authorized the section in State medicine to act as a standing committee on medical education, the several elected members being required to communicate without delay (I.) with the several State medical societies and the legislatures of the States they respectively represent, with the object of creating State boards of medical examiners, where such are not already in existence, whose certificate shall be necessary to the issue of a license to practice medicine in that State ; and (II.) with the authorities of every regularly organized medical college in the State which has not already taken such action, urging upon them, first, the requirement of a proper preliminary education of matriculants, to embrace, at least, a knowledge of English orthography and grammar, the etymology of the more common Greek and Latin derivations, and the fundamental rules of arithmetic, to be ascertained by a written examination preserved for reference ; and, second, greater care in ascertaining the fitness of candidates for a degree by making their final examination in part a written one, to be kept on

record and accessible for inspection by the State board of medical examiners, board of censors of medical societies, or authorized persons requiring information as to the professional qualifications of graduates.

Resolved, That in the opinion of the American Medical Association, medical colleges should confer upon graduates the degree of *Batchelor in Medicine*, such graduates to be eligible to the degree of *Doctor of Medicine* at the end of three years, after having given satisfactory evidence of their qualification to the board of censors of the State medical society.

Resolved, That article 2 of the plan of organization of the American Medical Association be amended by this additional provisio:

Provided, That every permanently organized State, county or district medical society entitled to representation in this Association shall be required to appoint a board of censors, who shall rigidly scrutinize the literary and professional qualifications of every candidate for membership therein, and hereafter no delegate shall be admitted to a seat in this Association who shall not have received the certificate of such a board of censors, or of a State or National board of medical examiners.

Drs. Rauch, of Illinois; Billings of the United States Army; Tuckerman, of Ohio; Hibbard, of Indiana; Hicks, of Pennsylvania; Sheean, of New York; and Bush, of Delaware, discussed the resolutions, when further action was postponed until tomorrow.

TRANSACTIONS OF THE OBSTETRICAL AND GYNÆCOLOGICAL
SOCIETY OF WASHINGTON, D. C. Stated Meeting, held November 17, 1882.

Dr. Jos. Taber Johnson read a long and interesting paper, giving a successful case of

BATTEY'S OPERATION,
occurring in his practice last August.

The case presents the following history: The case was first seen by Dr. Johnson, in consultation with Dr. J. R. Riley, in June, 1882. Miss M. was an unmarried lady, twenty-nine years

of age, and gave a history of ovarian pain and convulsions reaching back to date of puberty. She had been under the care of many physicians in Pennsylvania, her home, but had never been relieved. She was constantly growing worse, and had become a great burden to herself and friends. Her mental faculties had lost their vigor, and she presented a facial appearance much resembling a confirmed epileptic. Her constant pain, increasing at menstrual periods into agony, finally culminating in spasms, during the days of the flow, had destroyed all pleasure in living, and she looked forward to an early death as her only relief. Her pain and eclampsia were aggravated by an unrelieved menstrual molimen. For several months last year she had no flow, and during that time grew rapidly worse.

Her pain was only controlled by large doses of morphia, chloral or alcohol. Life was unendurable without these remedies, and they obtained for her but temporary comfort.

After a careful examination, Dr. Johnson expressed the opinion that the only hope of cure was in the removal of the ovaries, and he fully explained the dangers attending the operation. Miss M. desired to have the operation performed at once, if it presented even a ray of hope. She much preferred to die than to live on in the pain she was enduring. Life had no charms for her. The price she was compelled to pay for its continuance robbed death of all its horrors; indeed, she welcomed its approach as the only means of escape from a condition worse than death to her. After various consultations with physicians, friends and relatives, it was finally determined to operate, and on the 17th of August, 1882. Dr. Johnson removed both ovaries and one Fallopian tube by the abdominal section, the patient being in a private room in the Providence Hospital, of which institution Dr. J. is gynecologist. The patient made a good recovery, and has since been well. She has had no sign of menstrual flow, and scarcely a sign of convulsions, since leaving the hospital. Has had a number of momentary attacks, without becoming unconscious or falling. She is now cheerful, happy, very grateful, and a useful member of the household—caring for others, instead of, as heretofore, being constantly cared for.

The President requested Dr. King to open the discussion.

Dr. King said that he felt certain he did not know as much on the subject under discussion as Dr. Johnson, who deserved to be specially complimented for the manner in which he had handled his subject, and for the skill with which he had performed the operation, the operation being the first of the kind in this District, and at the same time successful. He had no personal experience with the operation, and hence had but little to say; in fact, after the careful, elaborate paper just read, there was very little left to be said. In a curious book by Dr. Bulwer, published in 1623, the castration of women was treated of, although the subject was not handled from a scientific standpoint, and it was doubtful whether the cases reported were reliable. One of the cases given was amusing. A man had castrated a woman, and was brought to trial for it. The justices were greatly troubled about it, because there was no law against castration of women, although there was one against castration of males. They finally solved the difficulty by hanging him for stealing apples from the woman. The old historians told us that the king of Lydia kept castrated women. Female castration was also referred to by Hesychius, Athenæus, Aristotle, Suidas, Galen and others. All this seemed to show that the spaying of women was not a modern practice, but Battey's operation was novel in this, that it was undertaken for beneficent and curative purposes. Battey, in his paper read before the International Congress in London, in 1881, had collected all the cases from 1872 to 1881, given by different operators, 218 in all, of which, however, 25 were "incomplete" operations. Of the total 218, there were 26 in which the element of epilepsy (either with or without other abnormalities) was present. Of these 26 epileptic cases, over two-thirds are said to have been relieved by the operation, the record being as follows: Died, 4; cured, 14; improved, 4; not improved, 2; not cured, 1; not stated, 1. The mortality of the whole 218 cases contained in Battey's list, of which 10 were his own operations, was 18 per cent. Dr. King said that he could not criticise either the operation or Dr. Johnson's case; the result showed that the doctor had done well. At the same time, the necessity for such an operation was a sad commentary on the boasted scientific knowledge of the age, an age so full of ad-

vances in pathology, hygiene, therapeutics, *materia medica*, etc., inasmuch as we had to come to it at last, and conclude that with all our knowledge, nothing remained but to castrate. It seemed that so far we had failed to understand the causes, pathology, therapeutics and hygiene of these troubles, so that nothing was left but surgical interference. And, above all, it was an operation not confined to the old, but practiced upon young women between twenty and thirty, and upon some even in their teens. They were unsexed so far as reproduction was concerned, and rendered barren for life. True, some of the patients in the incomplete cases had afterward married and borne children. The great danger lay in this, that the successes might cause it to be a hobby ridden too much, a thing that happened when the Cæsarean operation first became popular in France; then the operation was said to have become as common as blood-letting. The danger in Battey's operation was the temptation held out to relieve the symptoms at once by the brilliant operation of oöphorectomy, and we might easily go to extremes in this matter. Take cases of epilepsy; was it frequent to spay men for this trouble? Yet we know that many cases depended on sexual excitations, and we know that this could often be kept down by long-continued and large doses of bromide of potassium. He thought the treatment ought to be urged, that the bromide should at least be kept up for years, just as we did in male patients, before resorting to castration. The question had occurred to him, whether ligation of the uterine and spermatic arteries would not be equally effective. Still, there was, perhaps, danger in ligatures, and beside this, the collateral circulation might be re-established. The idea was not new with him. Simpson had proposed ligature of the ovary, although Dr. King did not quite understand whether he meant ligation in bulk or of the vessels. Bartlett had successfully ligated the ovaries and cured his patient. As to myoma being an indication for the operation, he did not think that it was set down that mere development or rapid growth of such a tumor was an indication, unless there was dangerous hæmorrhage. As to Battey's report, showing all the cases he could collect, it was but natural that a man with a new operation would look upon the bright side of the subject. Then, again, all the cases had oc-

curred within the last ten years. What would these women be in twenty years? For, while it was true that the operation had led to no special results in animals, we could not tell what would finally happen in women.

Dr. Kleinschmidt said it had been his privilege to be present at the operation, and he had also the opportunity of seeing the patient since, having visited her on yesterday with Dr. Johnson. The change in her facial expression was remarkable, and he certainly would not have known the woman, although he had looked right in her face during the operation. Her face had lost the low, almost brutish expression which was so striking when he first saw her upon the operating-table; and when she entered the room yesterday she wore a pleasant smile, and appeared very cheerful. Upon inquiry, she informed them that all her former severe attacks had left her; that she had slight attacks, lasting a minute or so, at the time of her former menstrual discharges, and that the last but one menstrual period had passed off without any attack. She could now take care of herself, and was not obliged to have some one constantly watching her. Dr. K. said that while, as regarding a perfect relief from these nervous attacks, the operation might not be called a complete success, yet it certainly was successful in this, that it had converted severe epileptiform seizures, most of them lasting from four to six hours at a time, during which it required several persons to hold her, into attacks of what our French brethren called *petit mal*, passing off in a few minutes, or even seconds, and consisting simply in a temporary loss of consciousness.

Dr. King would add to what he had said, that, almost immediately after Dr. Battey had read his paper before the International Congress, Dr. Grailey Hewitt read a paper on cases of hysteropilepsy due to flexions of the uterus, which were cured by the use of an appropriate pessary.

Dr. Busey inquired, How would the operation do in vaginismus?

Dr. Ashford had not heard Dr. Johnson's paper read. He was, however, present at the operation, and was struck by the brilliant and successful manner in which it was done. He did not at that time consider that it was a fair test in the case under discussion, and thought that, had it failed altogether in relieving

the nervous symptoms, it would have been no proof against the propriety of operating in these cases. Although he advised it in this case, he yet had doubts as to its success, because it looked to him as if the brain was seriously affected, and hence he could not see how success could be looked for. Still, it was one of those rare cases where patient, friends, and medical attendants all were anxious to have something done for her relief, so that almost any procedure looking to that end was justified, after failure of all ordinary means. Practically, he knew nothing of the operation, and very little of its bibliography, but he thought that Dr. King's remarks as to the danger of its becoming too popular were pertinent. Thus, he had noticed, in looking over the journals, that during the last year or two, the indications for which the operation was advised had greatly increased in number. At first the indications were laid down in narrow limits; now the limits were becoming much more extensive, whether from the results obtained or from mere speculations. The history of the operation itself certainly did not give a wide range of indications for it. It appeared less indicated in hystero-epilepsy than in uterine growths, where the induction of the menopause was a good reason for its performance, as shown by the results obtained, for the growths had ceased to enlarge, even if they had not become actually reduced. He held that the indications were stronger in epilepsy induced by ovulation, than in cases where the attacks of epilepsy occurred more frequently. It was also indicated in cases of absence of the uterus and atresia vaginæ, where the appearance of the menses caused serious trouble. In some cases of his own, he had had the operation in mind in order to relieve the hæmorrhage due to uterine fibroids, and had advised the patient to have it done. In one of these cases, he forgot that he had first advised against it, and she was now in charge of Dr. J. T. Johnson. He did not know whether the doctor had relieved her by treatment. The great good of Dr. Johnson's paper was that it set us all to thinking over the operation, and the probable and possible indications for it.

Dr. Louis Mackall (by request) said that he had listened to and learned a great deal that was interesting from the paper, and expressed his thanks to the author for it. He felt that he was

unable to add anything to the subject. No doubt the operation would prove a boon to humanity; still, it was a question in his mind whether all the diseased conditions for which the operation was undertaken were likely to be benefited by its performance. Hystero-epilepsy, as we knew, did not have its seat in the ovaries; the condition of the latter simply furnished the exciting causes for the attacks. The real trouble lay in the condition of the nervous system, which in some of its parts was in an unstable molecular state. He would also remind us, that we again and again met with cases of epilepsy where the seizures occurred day after day, and in greater and greater severity, until finally the intellect was all but destroyed, when the patients had a brutish look, and when all therapeutic means had been exhausted in vain. Such a patient would perhaps be sent West to some quack, and by and by we would hear that under the care of this man he was greatly improved, that this improvement lasted for months, until finally he returned looking well, and showing by his actions that he was in all respects vastly improved. This apparent recovery would go on for a time, and then, gradually, the man would fall back to his former condition. Then, very likely, another quack would be tried, and again improvement would take place. All of us, no doubt, knew of such cases and were surprised at the results. It was necessary, therefore, to wait some time before we could finally decide upon the success of this operation in any given case. It might be that by the removal of the ovaries a certain beneficial impression might be made upon the central nervous system, something similar to what we saw in some cases of trephining for epilepsy, where good results followed, even though no evidence of pressure on the brain was found. These remarks, however, he did not intend as a reflection upon the operation. There was one class of cases, not referred to, in which he deemed the operation perfectly justifiable, viz., a displaced ovary which caused intense suffering when bound down in Douglas' fossa. Here, as a rule, only one ovary need be removed, and by way of the vagina. There was one statement made by the doctor in regard to the vaginal operation, that it was less dangerous than the abdominal section. He had seen in a recent medical journal statements of a contrary character.

Dr. Ashford said that it was claimed that the results obtained by the vaginal method were not as good, but that the operation itself was less fatal than the abdominal section.

Dr. J. T. Johnson.—The mortality, as given, was 17 per cent. for the vaginal, and 24 per cent. for the abdominal operation.

Dr. Ashford drew attention to the condition of the ovaries in Dr. Johnson's case. In some cases they were normal, hence the name of "normal ovariectomy" given to the operation; but in most of the cases there was a diseased condition, and in these the success of the operation had been greatest; in other words, the disease here depended upon the abnormal condition of the ovaries.

Dr. W. W. Johnston stated, as a curious coincidence, that there were now in this room specimens of the first ovariectomy performed in Washington, by Dr. May, and of the first oöphorectomy performed here. In Dr. May's case the operation was easy and the patient recovered. The case had never been published.

Dr. Mackall inquired whether there were not among the cases reported some of displaced ovaries.

Dr. J. T. Johnson, in reply, stated that the operation had been done for the relief of that condition, and the suggestion was made to remove them by the less dangerous vaginal route. We could feel the organ in Douglas' fossa, and easily cut down upon it, while, if we attempted to reach it by laparotomy, we would be obliged to hunt for it in the pelvic fossa, and the adhesions might render the operation a very bloody one. In hernia of the ovary, the operation was also easy. In closing the discussion, he said he was indebted to the Society for the kind remarks made. He would never have undertaken the operation, had he not had the encouraging advice of his friends, all of whom urged it. He must thank his assistants at the operation itself. It was said that no one knew, in a case of this kind, what he would find upon opening the abdominal cavity; in his own case, fortunately, everything was easy, so much so that he was almost afraid it might turn his own head. When, in his paper, he had spoken of the difficulties of the operation as pointed out by Spencer Wells and others, he had no idea of landing his own good fortune and success, for in his case all was perfectly plain sailing. The name "normal ovariectomy" would not apply here, for there were cysts

in the ovaries, the broad ligament, and the Fallopian tube. Some of these, in time, might have enlarged and finally produced a large tumor. His patient had suffered for sixteen years. But even if it had only been known that these cysts existed, the operation would have been justifiable.—*Am. Journal of Obstetrics.*

ELECTRICITY IN UTERINE DISPLACEMENTS.* By E. A. BARTLETT, M. D., Albany.

The frequency with which disease of the uterus and its appendages are prominent causes in the ill health of women is erroneously regarded by physicians. There are those who see these as causes in every ailing woman, and there are others who seem never to take them into consideration. Others, from feelings of delicacy in approaching the subject, or for other reasons, try to make themselves believe that there is some other cause for the obscure symptoms by which they are confronted.

These are all false positions. However rarely or frequently they may be factors in ill health, it is the experience of every practitioner that uterine diseases may be the source of many remote, subjective symptoms; and, if a patient has persistent mysterious symptoms for which no adequate cause can be found, and which do not give way under a general course of treatment, we are not only justified in directing our attention to the pelvis, but we are in duty bound to do so. In many cases the pain in the loins, dragging of the viscera, almost constant backache and other characteristics tell too plainly where the seat of trouble is. Mal-positions are found in a large percentage of these cases, and it is to the *rationale* of electricity in their treatment that your attention is invited.

Adopting Simpson's division, we have two classes of displacements—*versions* and *flexions*, the latter being not an exaggeration of the former, but an entirely separate condition. In the former the uterus may be turned upside down and still the canal be relatively straight, while in the latter the canal is bent upon

*Read before the Albany Academy of Medicine.

itself at more or less of an angle. This fact is important, because it points to various causations, and necessitates treatment peculiar to the case. These mal-positions may be due to a variety of causes. In the poorly developed uterus anteversion is about in proportion to the want of development, but in far the greater number of cases they are due to congestion, engorgement and hypertrophy. The veins of the uterus are normally of large size, and as a result of carelessness during the puerperal and menstrual periods they are only partially emptied, venous congestion takes place, the organ is engorged, and there may follow hypertrophy of tissue. Any cause producing relaxation of the suspensory ligaments and the vaginal walls finds an admirably in this overburdened uterus, and version is the result. If, however, there has taken place degeneration in the muscular fiber of the uterus, flexion will be the result.

It cannot be denied that the general treatment by a prolonged course of chalybeates and stimulation of the uterus, while successful in some cases of displacement from a partially developed uterus, is in more of the same kind totally inadequate. It is only too true that in the hands of very many practitioners the use of pessaries, whose number and form is legion, is followed by the most unsatisfactory and sometimes the most unhappy results. It is the experience of the very best gynecologists that electrolysis, scarification and such like operations are insufficient in many cases to bring about desired results. And so it happens that, without thought of superseding any of these methods mentioned, electricity has been enrolled in the list of useful remedies. For a long time it had been used by persons outside the medical profession, and indeed it was the beneficent results so obtained that centered the professional mind upon its use in this special department. Much of this use has been empirical; the details of its action were not sought for; the excellent results sufficed.

We know that electricity acts, when passed through the human body, either mechanically or chemically, either directly upon the organs or indirectly through the nerves. Now, if we remember what conditions exist in a displacement and some of the principal causes, we shall surmise that the use of electricity

will be followed by very satisfactory results in many cases, but we shall also realize that there will occur many cases in which electricity alone would be just as powerless as any other application. In an extreme case of version or flexion it is manifest any conceivable application of electricity would, of itself, be useless to accomplish reposition. Were the supports to the uterus composed of muscular fiber, and were they in a condition of extreme relaxation, there might be a possibility of causing sufficient contraction to bring the organ into place. This is not the case; a portion of the ligaments supporting the uterus are simply folds of peritoneum containing no muscular fiber of their own, while others are the usual ligamentous tissue; both have some muscular fiber prolonged upon them from the uterine walls, which may be excited sufficiently to render some service in slight versions, but in severe or extreme cases they are of no appreciable service.

The foregoing is a true statement of facts; nevertheless, experience teaches us that an ante-, retro- or lateroverturned uterus, if not too far gone, can be replaced under the use of electricity, and this, in many cases, applied only exteriorly. How is this result produced? Placing one electrode of a faradic machine upon the lower lumbar vertebræ and the other upon either inguinal or hypogastric region, let the circuit through the primary coil be closed; there will be felt, if the current be sufficiently strong, a sharp contraction under the latter electrode. This has by some been assumed to be the action of the uterus and its supports; the assumption, however, is manifestly erroneous. As we have seen there are no muscular fibers in the uterine supports to contract, or at least not enough to cause so violent a contraction; and the uterus lies so deep in the pelvis that the contraction of its fibers would be much less perceptible externally than what we notice. The assumption is partly due to the results obtained in the obstetric use of electricity, where the contractile effects upon the uterine walls are of such marked character. The cases are not parallel, for during parturition the uterus is in the abdominal cavity, where its contractions can be plainly felt, which is not the case here.

If we look at the anatomical disposition of the parts, we shall

find that we have under the electrode, when it is in the left inguinal region, the superficial and deep abdominal muscles and below them the sigmoid flexure of the colon; in the right inguinal region the corresponding muscles and beneath, the cæcum; in the hypogastric region, the rectus abdominis and pyramidalis muscles and beneath, the bladder. If we place this electrode upon any portion of the abdomen we shall note, under the same conditions, the same phenomena of contraction, and, if the action be prolonged and extended over the whole abdomen, it will bring about the act of defecation, or a desire for it. This would tend to show that the contraction here takes place in the muscles which constitute the abdominal parietes and also in the muscular coat of the intestines. What is true of this part is also true of the other part of the abdomen. The contraction felt there is not in the uterus and its supports. If, however, we insert a finger in the vagina and place it in contact with the uterus, we shall feel a slight thrill and decided contraction of the walls of the uterus analagous to the sensation received during a labor pain; but this contraction is not sufficient nor in the proper tissue to replace the organ, supposing it to be displaced; so we must seek further for the remedial cause.

Examples are not wanting of the power of electricity, both galvanic and faradic, to relieve engorged and even hypertrophied tissue. Galvanism, by its subtle chemical, and faradization by its mechanical action, are capable of improving nutrition, stimulating muscular contraction and hastening absorption. Here, then, we have a rational and tenable method by which electricity may be of great service. The modification of nutrition caused by electricity may have two opposite effects; it may cause increase or it may caused iminution in the size of a part or organ. In these opposite results there is nothing inconsistent; they are the result of healthy nutrition caused by the current.

If we place the electrodes as before, the hypogastric plexus of nerves, from which pass the nerves innervating the uterus and vagina, lying directly in front of the sacrum, is in the field of action for the current. It is just here that Budge and Waller located the genito-spinal center. The electricity conducted along these nerves to the uterus and vagina there does its rem-

edial work, contracting muscles, altering nutrition and increasing the tone of the relaxed ligaments. Thus stimulated, the displaced organ regains its normal size, and, slowly perhaps, but surely, returns to its proper place.

This method of external application is especially serviceable in vaginal cases and with timid women, but in very rebellious cases, and with married women generally, the introduction of an electrode to the vagina will be found much more efficacious. Not only is the muscular coat of the vaginal walls made to recover its tone, and thus one of the best supports provided for the uterus, but an internal application brings the organs directly under the action of such pole as their condition may require, and enables us to produce somewhat more rapidly tissue changes. Moreover, the chemical effects of the galvanic current upon the secretions of the mucous membrane and the contiguous glands may be utilized by this means, remembering the differential polar action. In like manner, the insertion of one electrode into the rectum or bladder enables the operator to localize the action very strictly and produce marked results.

It is well known that if a strong galvanic current, passing through the pelvic viscera, be suddenly interrupted there will be produced a "coppery" taste in the mouth. This phenomenon may be made to "point a moral." The hypogastric plexus, of which we have spoken, receives fibers from the spinal nerve, and the vaginal branch has a large number. The diffusion of galvanism along these fibers to the nerves, and thus to the cord, serves to put the spinal cord in an electric condition, and this irritability modifies decidedly the subjective symptoms accompanying uterine disease. This is really an important feature in the *rationale* of electricity in uterine displacements, and accounts somewhat for the prompt relief which so often follows this kind of treatment, of the despondency accompanying these cases, and which is one of the great drawbacks to calling the attention of a young woman to the fact that she is a subject of "female weakness." But it would be unwise to depend upon this "diffusion of current" for relief of subjective and remote symptoms. The operator who confines himself to localized treatment of uterine disease, neglecting thorough general treatment, sacrifices

much of the beneficial effect of electricity. If it is necessary to produce mechanical effects, local faradization is indicated; for local chemical effects, galvanism; but this is only a small part of the work of restoration. The connection with, and relation to, other organs and parts of the body of the organs of generation are so intimate, and derangement here is followed by so much disturbance elsewhere that general treatment of some sort becomes essential. In the form of electricity addressed either to the cerebro-spinal axis or the sympathetic system we have a valuable auxiliary whose use hastens recovery. In conclusion, time is essential in any form of treatment for these cases, and the patient may be given to understand that relief is not the result of a few days, but of weeks or months.—*Med. Annals.*

INTRA-UTERINE INJECTIONS IN THE TREATMENT OF PUERPERAL SEPTICÆMIA. BY T. GAILLARD THOMAS, M. D., Clinical Professor of Gynæcology in the College of Physicians and Surgeons, New York.

The following case seems to me to illustrate what should be the accepted treatment of puerperal fever, or puerperal septicæmia, at the present day. The case was that of a lady in the higher walks of life whom I was called to see about a month ago, in consultation by her physician, a man of wide experience. She was a primipara, was taken in labor at four o'clock Sunday afternoon, and at nine o'clock in the evening was delivered of a female child, without any difficulty or assistance. Her physician examined the external genitalia carefully, and found no tear whatever. The nurse was instructed to syringe out the vagina carefully the next day with carbolized water, which she did. The first forty-eight hours passed by without any bad symptoms at all, but, on visiting her on Tuesday morning, the physician found a temperature of 101° F., and in the evening it had risen to 102.5°. The next morning, the morning of the fourth day, the temperature was 103°, and the patient began to complain of a very severe pain in the right iliac fossa. There had been no chill. At five o'clock in the afternoon the temperature was 106.5°

in the mouth. The patient's appearance became wild, as of one who was about to have puerperal mania; the skin was hot, and she was crying out with pain, although she had received a good deal of morphine.

Having been called to see the patient, I took the temperature in the mouth myself, and confirmed the record of her physician, that it was 106.5° . The pulse was 145. Making a vaginal examination, I found a bilateral laceration of the cervix uteri extending nearly up the vaginal junction. Probably this extensive laceration partly accounted for the rapidity and the ease of the labor as occurring in a primipara. I urged that the uterus should be washed out with carbolized water at once, but her physician had never seen the method practiced, and was strongly prejudiced against it; he finally consented only because it was apparent that unless something decided was done the patient would soon die. Using the Chamberlain tube and the Davidson syringe, Dr. Jones, and afterward Dr. McCosh, continued to wash out the uterus with carbolized water every four hours during the night, and the next morning the temperature was found to have sunk from 106.5° to 101° ; the pulse had fallen from 145 to 120; the patient, who had been given opium quite freely during the night, declared that she was very much relieved. Indeed, the relief had been so extraordinary that they began to believe that the danger was not real at all; and that exceptional circumstance had occurred, and that there was no septicæmia. The uterus was now washed out at longer intervals, but at once the temperature went up to 102° , 103° , 104° and 105° , and the patient again began to look maniacal. The uterus was now washed out every three hours, opium was freely administered, ten grains of quinine were administered every eight hours, ice water was passed through a coil of rubber tubing placed over the abdomen; and as long as this treatment was kept up the temperature did not rise above 101° or 102° , but as soon as they ceased to wash out the uterus the temperature at once rose to 104° , and at times to 105° . This fact was proved by repeated trials.

After this treatment had been continued for ten days, a physician remaining with the patient day and night, giving the inject-

ions every three hours, and thirty grains of quinine during the course of the day, it was believed to be time to stop it; but in less than twenty-four hours the temperature again arose to 105° . I mention the amount of quinine which was being taken particularly, so as to prove positively that there was nothing of a malarial character in the case at all. On the sixteenth day after delivery, the tenth day after the commencement of the high temperature, the intervals between the uterine injections were extended from three hours to four, then to five, six and seven hours, and finally they were discontinued altogether, and at the same time the administration of quinine was given up and the coiled tubing was taken off. Opium was continued in small doses for a while longer, and the patient recovered entirely.

I wish to contrast this case with another which I saw just before—that of a woman who had been recently delivered of her third child. When I was called to see the patient the temperature was 106° ; she had been taken with violent pain in one iliac fossa, and had been put five days before pretty profoundly under the influence of opium, and a blister had been applied over the whole of the abdomen. Large doses of quinine had likewise been administered. When I saw the patient, the use of intra-uterine injections was begun at once, but the patient lived only twenty-four hours and died in a state of coma.

It seems to me that the time has arrived when puerperal septicæmia should be treated upon just as simple a plan as septicæmia of any other kind is, namely, by washing with some antiseptic fluid the surface where the disease originates—some fluid which will remove the poisonous material which is being absorbed, and also, so far as possible, neutralize its poisonous qualities. In brief, I would say that puerperal septicæmia, with our present light on the subject, should be treated in the following manner: First, wash out the uterine cavity completely with some antiseptic fluid; second, quiet all pain by opium; third, get the peculiar influence of quinine upon the nervous system; and, fourth, keep temperature, at all hazards, at or below 100° by the methods which we now possess. Three years ago, at the American Gynecological Society, which met in Baltimore, I took the ground which I take to-day regarding this subject, and only one gentle-

man in the entire society supported my view. Every other member who spoke referred to the dangers of introducing air into the uterine sinuses during the injection, etc. But I believe that the dangers attending the use of the injections are counterbalanced by the benefits to be derived. I do not think there is the least probability that air will be introduced if a tube of a large size—as large as the finger—is used. But when a catheter is employed there is some danger in inserting it into a sinus and introducing air and fluid together directly into the vessels.—*New York Med Jour.*

INHERITANCE OF CANCER.—In the course of a paper on the Local Origin of Malignant Growths, read in the section of pathology at the last annual meeting of the British Medical Association, Mr. Jonathan Hutchinson observed: "It is needful to say a few words as to the inheritance of cancer in its bearings upon the doctrine of its local origin, since an adverse argument has been founded upon it. It has been urged with much plausibility, that a disease which is capable of inheritance must be a constitutional one. No doubt, to some extent, this is true; but the argument must not be pushed beyond its legitimate scope. The laws of inheritance, as with property, so with disease, concern convection, and not origin or production. The inheritance of a fortune is a very different thing from its acquisition, and gives us no clue as to how that may have been accomplished. The causes of cancer, as we meet with it in practice, may, perhaps, be usefully classed as three; senility of tissue, local irritation, and inheritance. Of these, only the first two can rank as true causes; the latter, although practically of great importance, is only a mode of perpetuation of that which the other two have originated. Senility gives proclivity, local irritation excites, and subsequently hereditary transmission may perpetuate. The facts, as regards chimney-sweepers' cancer, give perhaps the best illustration of what I mean. Before this malady was partially suppressed by act of Parliament, I believe it was commonly noted that when the trade of sweep went, as it often did, in a family, proneness to suffer from soot-warts, and for soot-warts to degenerate into cancer,

increased in successive generations. Grandsons and great-grandsons were attacked at earlier ages, and with much greater frequency, than those who were new to the trade. Here, then, we observe the liability to a form of cancer, produced in the first instance by a local cause, perpetuated and intensified by hereditary transmission. We witness the genesis of cancer, and see the shares taken by local irritation and inheritance, and how entirely secondary the latter is as regards the former. If we ask what it is which is inherited in the transmission of cancer, probably the nearest approach to an answer which can be given, will be to say that it is a peculiarity in cell-structure generally; not germs; not a blood-malady, but a special type of cell organization, permitting, with greater ease than in other persons, the injurious influence of local causes. Even in the sweep, whose forefathers have suffered from soot cancer, the transmitted tendency still waits for the exciting cause, and the disease occurs, not in internal and therefore protected parts, but on the same part as it did in his great-grandfather, and under the direct influence of exactly the same cause. Not that I would for one moment doubt that, in some instances, the inherited proclivity may be so strong, that it does not wait for the help of any exciting causes, but manifests its power in the production of a cancer which may be considered spontaneous. It is probable that in this way we ought to explain almost all cases of cancer occurring in very early life; and it may be the fact that, in a few of these, something more definite than tissue proclivity may be transmitted, possibly even germinal matter, especially in those cases in which the parent was the subject of the malady. Thus, then, although I fully admit that in the examination of our patients we must make large allowance for the influence of inheritance, I wholly deny that we can allow it rank as a true cause of cancer."—*British Medical Journal*.

ON PICRIC ACID AS A TEST FOR ALBUMEN AND SUGAR IN THE URINE. BY GEORGE JOHNSON, M.D., F.R.S.—For the detection of albumen, Dr. Johnson recommends that this acid should "be used in the form of a saturated aqueous solution, or

in the form of powder or crystals. The aqueous solution is most suitable for home use, while the powder or crystals may conveniently be carried in a urinary pocket test-case. A saturated aqueous solution may be quickly made by adding about fifty times the bulk of boiling distilled or rain water to the powder or crystals; a portion of the acid will crystallize out on cooling, leaving a transparent yellow supernatant liquid. This solution being added to an equal volume of albuminous urine in a test-tube, immediately coagulates the albumen. The coagulated picrate of albumen is soluble in alkalis; if, therefore, the urine be highly alkaline, it must be acidulated by a vegetable or a mineral acid before adding the picric acid solution. In my numerous testings for albumen with picric acid, I have not once found it necessary to acidulate the urine. The picric acid solution is itself sufficiently acid to dissolve the phosphatic sediment which results from boiling a neutral or alkaline specimen of urine. To detect a very minute quantity of albumen, the following method is the best: Into a test-tube about six inches long, the urine is poured to within two inches of the top; then, the tube being held in a slanting position, about an inch of the picric acid solution is gently poured on the surface of the urine, where, in consequence of its low specific gravity (1003), it only partly mixes with the upper layer of the urine; and, as far as the yellow color of the picric solution extends, there will be more or less turbidity from coagulated albumen, contrasting with the pellucid sustained urine below. If, then, the tube be placed in a stand, the coagulated albumen will gradually subside, and form a delicate horizontal film at the junction of the colored and the unstained stratum of urine, the yellow liquid above and the uncolored urine below being quite free from turbidity. If the urine should be turbid with urates, it must be cleared by heat before the addition of the picric acid solution.

“As a result of numerous observations, I have arrived at the conclusion that the picric acid supplied in this way is a more delicate, and therefore more trustworthy, test for albumen than nitric acid in cold urine, whether the latter be employed by the method of dropping the acid into the cold urine, or by pouring the urine on the acid previously placed in the tube. The simplest and most satisfactory mode of comparing the two tests as

regards their relative delicacy, is to dilute a specimen of albumin found that the picric acid solution shows the presence of albumen in a specimen diluted considerably beyond the point at which the nitric acid fails to give any indication. The picric acid, too, often causes an immediate albuminous opalescence in specimens in which nitric acid only slowly, and after an interval of some minutes, gives a similar, but sometimes a doubtful, indication." Dr. Johnson also describes a new process by which picric acid can be employed for detecting the presence of glucose in the urine. —*British Medical Journal*.

ON THE CO-EXISTENCE OR SEQUENCE OF DIFFERENT FORMS OF SKIN DISEASES.—Dr. J. K. Spender, of the Bath Mineral Water Hospital, describes a "Case of Lichen Psoriasis," at that hospital, which occurred in a man aged 14. The symptoms of psoriasis soon disappeared under hydro-therapeutic treatment, but the battery had little control over that part of the eruption which might be correctly termed lichen. The author continues: "I have had lately, in private practice, a case which illustrates the way in which accidental circumstances may cause different forms of skin-diseases to succeed each other. A retired farmer, aged 80, very temperate in all his ways, became depressed and generally out of health at the beginning of this January. In a few days, there was an acute eruption of lichen over a large part of the body, but most severely, perhaps, on the upper arms, on the flexure side of the elbows, and about the wrists. There was a rough symmetry in the grouping of the papules, which were sufficiently red and multitudinous to deserve the name of lichen agrius. There was not so much pruritus as a general heat or smarting; and as if to exhibit the eczematous or boiling-over process, which any form of skin-congestion may undergo, a large vesicle was developed on the front of each wrist among a crowd of angry papules. After a few days, the lichenous eruption desquamated on the arms as cleanly and decisively as if it were the sequel of a specific fever. On January 21st, small bullæ of pemphigus were seen on the back of both wrists and hands;

presently also about the feet and ankles; and soon afterwards, very large bullæ formed on the legs, thighs and forearms. There were grave adynamic symptoms at the same time. By careful treatment and good nursing, the patient is now (Feb. 4th) pulling safely through. Now, how are we to interpret this chain of curious phenomena? Do they form a series of what Sir W. Gull calls 'nerve vagaries'—a succession of nerve-storms, one disturbance effacing as soon as possible what went before, as if in a hurry to display its own signs? Or, according to a less transcendental view, we may regard different elements of skin-texture as effected by certain morbid influences, one after the other; and the wonder is, that a person at such an advanced age should be able to survive the shock of so many cutaneous lesions."—*British Medical Journal*.

DR. HENRY B. WILBUR, superintendent of the State Idiot Asylum at Syracuse since its foundation, died suddenly at the asylum April 30th, aged sixty-three years. He was a native of Wilden, Mass., and a graduate of Amherst College, and was the pioneer educator of idiots in this country, having established the first school for this purpose in his own house in 1848. He took charge of our experimental asylum at Albany in 1851, and three years later was appointed to the position at the State institution at Syracuse, which he filled with distinguished ability up to the time of his death.—*Boston Medical and Surgical Journal*.

CREDIT TO WHOM CREDIT IS DUE.—Philip Doddridge (1702–1751) spoke of nerve-stretching, and recommended it as a religious stimulant in his *Zeal and Vigor in the Christian Race*
 "Awake, my soul: STRETCH EVERY NERVE,
 And press with vigor on."

—*Glasgow Medical Journal*.

Items.

THE following is, as nearly as type can reproduce it, a facsimile of a postal card recently received by the Illinois State Board of Health :

Fieldon Ill 5-12-83.

John H Rauch M D. Sir. you still persist in trying to frighten our Graduates, like Springer of Hardin. who have attended two full, long terms in our School & Honorably graduated. I look upon you, as the chief, of a set of Dastard Bigots & villians & the sooner you arrest Springer the sooner you will get through with it. Yours. L C. Washburn. President of the St Louis Eclectic Medical College.

The "Dastard Bigots & villains," who compose the Illinois State Board of Health, decline to recognize the St. Louis Eclectic, and "frighten" its alleged graduates by refusing to issue them certificates entitling to practice. *Hinc illæ.*

On the 14th of March last a certificate was issued by the State Board of Health, entitling one Julius Nothhelfer, of 701 Pine street, St. Louis, to practice medicine and surgery in Illinois. The application for this certificate was based upon an affidavit that Nothhelfer was a graduate of the St. Louis Medical College, and this was corroborated by a letter from a member of the faculty of that institution, in which he says: "I can sincerely indorse Dr. Julius Nothhelfer, a graduate of the St. Louis Medical

College at the session of 1879-80, as to his moral and professional character and standing." In his first letter, March 7, Nothhelfer states that he intends "to practice in a country town in Illinois."

On the 24th of the same month, a similar certificate was issued to one Joseph Fitzgerald, also of 701 Pine street, St. Louis, and this was granted upon an affidavit that Fitzgerald graduated from the Royal College of Snrgeons, Ireland, in 1871. The affidavit was accompanied by a number of letters "bearing testimony to the capabilities of Dr. Fitzgerald as a medical man * * * eminently suited to take charge of any institution requiring a courteous and skilful medical officer." These were all written in Dublin, none later than 1874, and as this was not deemed recent enough by the secretary, a rather cautiously worded letter was forwarded by Fitzgerald from a prominent St. Louis physician, its reticence being plausibly explained by Fitzgerald on the ground of the latter being a stranger in that city. Fitzgerald requested that his certificate be sent to Belleville, St. Clair county, where he proposed to practice.

Last week the attention of Dr. Rauch, secretary of the State Board, was attracted by a large three column, four-page circular, headed "The Great Surgeons, Drs. Nothhelfer and Fitzgerald, late of London, Eng., graduates of King and Queen's college, will be at the Commercial Hotel, 100 to 104 Lake street, Chicago, for one month. Terms for treatment, cash. Charges, from \$10 to \$500, owing to the requirements of the case." In this circular, they not only promise to cure every imaginable disease, but offer \$500 reward for an incurable case. Inferentially, it is the bulletin of the "St. Louis Medical and Surgical Institute," an establishment which, it is safe to say, has no tangible existence; but which, in this sheet at least, is "equipped with the most perfect surgical instruments and appliances, furnishes the most approved methods of treatment, and treats successfully the great majority of the diseases and deformities considered and given up as incurable." Everything is done by "new methods of treatment, new and recently invented instruments, and new and recently discovered remedies." Some of the passages are unique even in quack literature.

Of course correspondence is solicited after the usual method,

and for the usual purpose of the infamous fraternity; consultations are free, and every imaginable device is employed to entrap the victim. What is meant by "consultations free" was tested yesterday, when they offered to visit and prescribe for an imaginary patient gratis, but would charge \$10 for the medicines.

The case is such a flagrant one, and comes so clearly within the authority of the Board, unhampered by the ten years' exemption clause, which shields the doctors Jameses, Keans, Clarks and others, that the secretary laid the fact at once before the individual members, and received their prompt authorization to revoke the certificate. After to-day, therefore, any professional act performed by "the great surgeons, Drs. Nothhelfer and Fitzgerald," in the State of Illinois, will subject them to fine and imprisonment in the county jail.

The foregoing was published in the Chicago and St. Louis papers of Wednesday A. M., May 2. Before noon of that day the street distributors of the circular were arrested, and within 24 hours Nothhelfer and Fitzgerald had "folded their tents," etc. It is understood they went to Milwaukee.

ERRATA.

The following corrections should be made in the article by Dr. F. C. Hotz, of Chicago, published in our last issue, and entitled "A Few Remarks on Foreign Bodies in the External Auditory Apparatus." The author was unfortunately out of the city when the JOURNAL went to press:

Page 20, 7th line from below, read *afterwards* instead of *afternoon*.

Page 21, 16th line from below, read *raw* instead of *rose*.

Page 22, line 21, read *useful* for *unsafe*; and, on page 25, the words "ear and meatus" are used several times for *ext. audit meatus*.

DR. JAMES NEVINS HYDE, of this city, is at the sea-shore. He will return to Chicago by the 1st of September, immediately after the annual meeting of the American Dermatological Association at Lake George.

ECSTASY.

Several physicians of Paris, and especially those, who make a study of nervous diseases, have been lately much concerned about a case of ecstasy, presented by a woman taken in the Beaujon Hospital. She was found by the police lying in a seat in the Champs Elysée completely insensible. Taken to the station, Dr. Pinel could not awaken her, although he used every means generally adapted to such an end. The patient is in an advanced state of pregnancy, has the eyes wide open, keeps the mouth closed, does not speak and eats little and rarely.

GONORRHOÆAL SCIATICA.

There seems to exist a very interesting relation between gonorrhœa and the development of sciatic neuralgia. Becchini reports in *Lo Sperimentale* the history of two patients taken with acute pains along the course of the sciatic nerves during the acute stages of gonorrhœa. All the usual remedies used for sciatica were tried without success. Relief was not obtained until the complete cure of the gonorrhœa, treated with the usual remedies.—*Le Praticien*.

DR. ROSWELL PARK, of this city, is about to remove to Buffalo, where he will engage in the practice of surgery. We can ill-afford to lose his name from the list of the profession in Chicago.

DR. CHAS. GILMAN SMITH is at the east. He is expected to return in August.

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Original Communications.

ARTICLE I.

ANTISEPTIC REMEDIES IN THE TREATMENT OF DISEASES OF
THE EYE AND EAR. From a Lecture at the Clinic of Rush
Medical College. By DR. E. L. HOLMES.

A candid survey of the experience of a large number of specialists in the application of antiseptic remedies in ophthalmic and aural surgery, leads, I think, to the conclusion that, after all that is possible has been accomplished by pure water, the field is limited in which antiseptics are proven to be of decided benefit.

This field, though limited, is very important, and embraces the treatment of several serious conditions.

The habit of carefully washing the hands, and especially the finger nails, during the hours of practice, and of cleansing all instruments, brushes and sponges in an abundance of pure water immediately before and after use, nearly banishes the danger of septic poisoning.

Those instruments and dressings which have been neglected after operations, and which retain dried pus, blood and other discharges, should remain some time in hot water, and be thoroughly disinfected by means of a quite strong solution of carbolic acid.

Before every operation, however trivial, it is well to cleanse the integument of the lids and adjoining parts with a solution of boric acid or of carbolic acid.

It is safe to keep all sponges and dressings impregnated with a weak solution of one of these acids and closely confined in a tight vessel.

While I must urge upon you the necessity of strict cleanliness in the management of surgical and of accidental wounds of the eye, I must admit, that within two or three years, I have accomplished this simply by the use of water. During more than twenty-four years I had never known a case of erysipelas, or of serious inflammation to follow an operation on the lids, or the operations for strabismus and pterygium, either in hospital or in private practice. And yet at the Eye and Ear Infirmary there had been several epidemics of facial erysipelas.

For the moral effect and for your own satisfaction in case of a possible accident, I advise you to apply, as dressing, compresses, moistened with antiseptic lotions, for all operations and wounds.

There is perhaps more certainty in regard to the benefits derived from the use of antiseptics in at least three forms of disease of the eye—purulent conjunctivitis, especially gonorrhœal—“creeping” ulcer of the cornea and blennorrhœa of the sack and nasal duct. In the first two diseases the eye may be frequently irrigated with the lotion; in the last, the lotion should be injected by means of a suitable syringe.

Some specialists believe that solutions of atropine, homatropine, duboisia, eserine and pilocarpine should be prepared as far as practicable only at the time they are required for use. A minute quantity of boric acid or of carbolic acid tends to prevent the growth of fungi in these solutions, which almost invariably appear without some form of germicide.

It will sometimes be within your power to prevent the spread of contagious diseases of the eye, by warning individuals suffer-

ing with purulent discharges from the eyes or genital organs, against the dangers to themselves and those around them resulting from want of strict cleanliness of person and clothing.

Special warning seems necessary in cases of vaginitis in young (scrofulous) children. Cases are not rare in which the disease has been overlooked or neglected, and the poison unwittingly conveyed by the children to their eyes.

As accoucheurs you may prevent serious disease of the eye in new-born infants by thoroughly irrigating with antiseptic solutions the vagina of every woman suffering from leucorrhœa during the last hour of parturition.

In families, schools, and public institutions, where many persons are collected, all patients with purulent discharges from the eyes should be carefully isolated. The lids of such patients must be kept clean by the frequent removal of pus by means of bits of linen or absorbent cotton. Pillow cases, towels and handkerchiefs soiled with pus should be placed at once in water, thus preventing contamination of the air from dried pus cells.

The most convenient solutions for the eye are perhaps the following: Carbolic acid, one grain to the ounce of water; boric acid, eight grains to the ounce; salicylic acid, three grains, with four grains of borax to the ounce; hyd. Bichlor., one grain to eight or ten ounces of water. It is doubtful if other agents possess special advantages over those above mentioned.

I need not dwell on the application of this class of remedies in diseases of the ear. Their special use is limited almost entirely to purulent affections. The strictest cleanliness of the external meatus, as attained by the frequent and prolonged injections of warm water, must be enjoined in obstinate cases; the meatus, then carefully dried by means of cotton, is to be partially filled with powdered boric acid, or the usual astringents. It is seldom that patients will not easily tolerate injections of warm water. Exceptionally the cotton and cotton holder mus. be employed to remove pus from the ear.

Following the injection, in place of the boric acid may be used, in certain cases, a solution of carbolic acid, of permanganate of potash, or of thymol, alternated with astringent solutions.

The utmost care is demanded in cleansing instruments em-

ployed for the ear, as for the eye, immediately after use. Pure water, we believe, is usually sufficient for this purpose. Eustachian catheters and other instruments introduced into the nostrils and throat are liable to come in contact with poisonous discharges. For this reason they should be placed for a time in quite a strong solution of carbolic acid. Except when instruments have been neglected after use, it seems to be excess of caution to boil them in hot water.

I do not wish to consider at this time the manner in which antiseptic remedies are beneficial, nor to discuss the theories whether organisms are the cause or the result of diseases of the eye and ear.

ARTICLE II.

A SERIES OF TRIPLETS. By HENRY OGDEN, M.D. Read before the Chicago Medical Society, June 18, 1883.

A TRIO OF TRIPLETS.—The occurrence of triplets being rare, and three cases occurring in this city recently within the space of seven weeks, I concluded it might be interesting to the medical profession to know something more in detail in regard to these cases.

By request of the editors of the JOURNAL AND EXAMINER, I have gathered up such facts as were attainable relating to them.

I first condense from Dr. Spiegelberg, the German author, a few general points in relation to membranes, ova, etc., in multiple births, after which I shall present the cases of triplets occurring here.

As high a number as five children at a birth have been known to occur, a preparation of which was seen by Dr. Spiegelberg.

I have not been able to find any authentic record of a higher number.

Some of the old French and German authors speak of some remarkable cases, but I believe none of them claim they actually saw these cases, but say "it was thus written."

The frequency of multiple births varies with the year and country.

Twins are said to occur once in eighty times, while triplets occur only once in 6,000 or 7,000 times, the number varying a little with different authors from the above.

Generally twins are of different sex, next in frequency are two boys, and least in frequency are two girls.

There are either two corpora lutea or one double one. Sometimes two come from one ovary and sometimes one from each ovary. This has been known only where post-mortems were had. The decidua is single except in cases of double uteri. The membranes may be double or single, as also the placenta. If the chorion is double there has been more than one egg.

Two separate placentæ may have grown together. If the eggs are far apart a decidua may separate them.

The placental circulations are separate if there are two chorions, or at least the anastomosis is very limited. If there is one chorion the fruit has come from one ovum. If there are three vesicles in one ovum and three placentæ, the placentæ are melted together and there is no trace of a septum between them. This was the condition in Dr. Bartlett's case.

In cases where there is only one ovum, a large anastomosis is necessary between the foetal blood vessels, even between a vein and an artery. Twins in a common ovum are uniformly of the same sex, that is, they are alike, while children from different ova have such general resemblance only as offspring from the same parents commonly present.

In twins one single chorion occurs one time in eight, while the amnion is single only once in 132 times. In triplets and in other multiple cases, the same rule holds as to the placentæ and membranes, except, however, there are some complicated relations.

Commonly in triplets there exists one ovum alongside of a double one, yet there has been observed in triplets one chorion only, as also in cases of quadruplets. The relative frequency of a common amnion seems to increase with the number of children at a birth.

Generally in size and weight twins are below the average. But in twins at full term the aggregate weight is greater than in case of one child.

More commonly than in single labor is the foetus discharged at the 39th to the 40th week, on account of the tension of the uterus. The mother's organs not being large enough for more than one, generally, besides the tension in the uterus, may be supposed to mechanically interfere with their development. Sometimes they are not developed alike, one small; one large. The latter may be supposed to have had better surroundings in the way of location for getting a blood supply from the uterus. This is often observed in double uteri cases. The size of the placenta, the length and thickness of the cord, corresponds to the size of the child.

The largest child is not always born first, as in Dr. Bartlett's case of triplets, the medium sized one first, the smallest next, and the largest child was born last. But in the other two cases now reported, the largest was first, the medium sized one next, and the smallest last.

CASE BY MIDWIFE.—MRS. M. LONDT.

The first case of triplets we note here occurred at No. 96 Fullerton avenue. Parents are German; were married in Germany, and one child born there. Moved to this city eleven years ago.

The father, Mr. Anton Arendt, is 40 years of age, is of medium height, but good weight. The mother, Julia Arendt, is 32 years of age, good size and weight, very fair complexion, and light blue eyes. She has given birth to nine children, three boys and six girls, including the triplets. At 3 o'clock, Sunday morning, February 11, 1883, the mother was awakened by some slight labor pains, but they were not very severe until after 6 o'clock, when the midwife was sent for. At about half past six o'clock her pains began to increase so that she was compelled to take to the bed.

The midwife did not arrive until 7:20 A. M., and at 7:30 A. M. the first baby was born. At 7:45 the second child came, and at 8 o'clock the third baby was born, there being only 15 minutes between the births of the first and second and second and third. All girls and living. At 8:10, or ten minutes after the last child was born, the placenta came away, being very

large and apparently in one common mass, showing the three separate cells very distinctly, and the cords varying in length and size according to the size of the babies.

The first was a vertex presentation, while the last two were foot presentations. In this instance the largest child was born first, the medium sized one next, and the smallest one last.

The weights were $6\frac{1}{2}$ pounds for the first, $5\frac{1}{2}$ pounds for the second, and $4\frac{1}{2}$ pounds for the third, a total of $16\frac{1}{2}$ pounds.

The babies are all in good health, although the youngest has been slightly ill at times. The mother nurses them, but as the amount of her milk is inadequate to the demands, the bottle is used to make up the supply.

There was a great amount of hæmorrhage, and the patient was in bed for about seven weeks, when she was able to be about the house.

She now complains of severe pains in joints, more in the right knee and foot. During term of pregnancy her legs became swollen occasionally, so that she was unable to stand on her feet for a part of a day at a time.

All of her previous labors were very much longer and more tedious than at this time. Mother and children were doing well at last accounts.*

CASE OF DR. H. VANBUREN, 15 N. MAY ST.

At a little after midnight on the morning of March 30, 1883, Dr. V. was called to the house of Mr. E. Garrison, 341 W. Randolph St., and found his wife, Alice Garrison, in labor pains, but not at all severe. She lingered along, with some inertia of the uterus, till 5:30 A. M., when she gave birth to the first boy. This was a breech presentation.

At 6 o'clock, the second boy was taken with the forceps, as there seemed to be a detachment of the placenta, cutting off the blood supply to the child. This was a vertex presentation. At 7 o'clock A. M., the third boy was still-born, and by appearances had been dead for several hours. This was a foot presentation.

These children were born within an hour and a half. In about

* The last born child died in June from inanition, having been weak from her birth.

20 minutes the placenta came away. There were separate and distinct cells and cords, and one common placenta. The cords were shorter than with single cases.

The first child weighed $5\frac{1}{2}$ lbs., the second 5 lbs., and the third $4\frac{1}{2}$ lbs., making an aggregate of 15 lbs.

The placenta was but little larger than in average single births.

There was only the usual amount of hæmorrhage, and the labor, on the whole, was not more severe, or the pains to exceed the average case of an easy single birth.

Patient had given birth to one child before, and she was now at full term. Patient's mother had twins.

Parents are American.

The father of these children is 35 years of age; tall and fleshy, weighing about 200 lbs. The mother is 25 years of age; she is about medium size and weight.

She was very well all through term and is getting on well now, and nurses the two surviving boys.*

CASE OF DR. JOHN BARTLETT, 450 N. CLARK ST.—TRIPLETS.
FEMALE.

Parents are Swedish, residing at 1675 Gehrke avenue.

The father, Albin Nelson, 28 years of age, is tall and good size. The mother, Augusta Nelson, 24 years of age, weighs 135 lbs.; is blonde, of good stature and form. Was delivered of her first child by a midwife, January 26, 1881, twenty-six months prior to the birth of triplets.

Some weeks afterward, Dr. Bartlett was called, because of her slow getting up; found cellulitis existing, and also a want of normal involution.

These conditions yielded readily to the usual means, and on March 3, 1882, he was called upon to attend her in childbirth. The head was presenting favorably, but the labor was tedious from uterine inertia, so that it finally became necessary to deliver with the forceps. Her recovery was satisfactory.

On March 27, 1883, Dr. B. was again called to her, and she

* As noted above, the last born baby was still-born. The first born died July 9th. The second born died July 13th. Both were sick about one week with indigestion, and died of cholera infantum. They were fed by the bottle after May 1st, but did not do well.

was again in labor, and, as she thought, several weeks before her time.

Two weeks previously, she had greatly fatigued herself in walking, and a few hours afterward she was seized with violent neuralgic pains in the uterus, so that a miscarriage was feared. The patient called attention to her unusual size, and expressed jocosely a conviction that she would have twins; the uterus was very large. No indications of a plural pregnancy were detected upon palpation. The labor progressed normally, the pains being stronger and more efficient, and the os dilating more speedily than in the former labor. At 10 o'clock A. M., a child below the normal in size was born, the presentation being cephalic.

Struck by the relative smallness of the child and the yet large size of the uterus, apparent at a glance, the cord was tied as promptly as was proper, and attention given to the mother.

Pains were recurring, and an additional sac of membranes was gathering in the os. Through these it could be determined that neither extremity of the foetal ovoid was presenting, and accordingly he ruptured the membranes at once, and sought to discover the position of the child. The right side of the abdomen presenting, the feet were at once sought, and the child turned and promptly delivered. The second child was considerably smaller than the first. This being removed, the womb was noted to be larger than after complete delivery, and a third sac was found descending into the os. Discovering here, likewise, through the membranes, that a cross-birth existed, he ruptured the membranes, and found a third child presenting, with right humerus and thorax toward the os. The child was promptly turned. It descended readily till the head engaged in the brim, gentle traction having been made upon it. Finding both arms extended alongside of the head, the ordinary rules were disregarded, and the head pulled through with the arms as mentioned. This traction was such as to approach force, but not violence.

The first and second child breathed promptly; this last was slow to respire, so that the ordinary restorative measures, including artificial respiration, were used, but in a few minutes breathing was established and the child removed. This completed the birth of three girls.

Notwithstanding the rather speedy emptying of the uterus, there being only five minutes intervals between the birth of the children, the womb responded quickly and well to the manipulation of the hand through the abdominal walls, and promptly contracted on the placenta.

It was noticed that it was in this stage unusually large. Gentle pressure and friction was maintained for some time. There was no hæmorrhage, nor could the placenta be felt by the finger per vaginam. After the lapse of fifteen minutes, a gush of blood occurred, apparently about 7 or 8 ounces. No sooner had this been removed than a second gush followed, as copious and sudden as the first. It was evident that the placenta was partly detached and a violent post partum hæmorrhage was probable, if energetic measures were not at once adopted. The hand was passed into the uterus and insinuated between the membranes and its walls. The edge of the very large placenta was reached at a point not separated from the uterus. Detachment was here begun and carefully continued over the whole attached surface. Contraction ensued and no more than ordinary hæmorrhage followed.

This placenta was single, weighing 2 pounds 6 ounces and measuring $9\frac{1}{2}$ by $9\frac{1}{2}$ inches across. The largest cord measured $18\frac{1}{2}$ inches in length, the medium 17 inches, the smallest $14\frac{1}{2}$ inches. The amnions were separate and the cells were proportionate in size to the cords and weight of the children, which were as follows: 6 pounds one ounce for the first, 4 pounds one ounce for the second, and 6 pounds nine ounces for the last born, aggregating 16 pounds 11 ounces. The patient did perfectly well till the 10th day, when over-exertion in the care of the children brought on a threatening of cellulitis, which, however, was apparently aborted within a few days. But from exposure and imprudence in exercise, a decided attack of cellulitis occurred on the 24th day, which confined her to the bed for three weeks.

The inflammatory exudation, as large as a child's head, was confined to a part of the true and false pelvis on a level with, to the left of, and behind the uterus. Recovery was finally complete. In connection with this attack of cellulitis it is well to state some additional facts. It will be noticed that in the de-

livery of the third child, Dr. B. followed the precepts of Deventer, and withdrew the head with the arms extended alongside of it. In so doing, he was careful to place the diameter of the child presented by the head plus the thickness of the arms in a long diameter of the superior strait, the left oblique. It has been stated that in the extracting this head a degree of traction was used more than is commonly found necessary in delivering the after coming head in multiparæ.

It was noted that more than usual pain was complained of under these manipulations; possibly the cellulitis which followed may have been in part due to bruising of her tissues by the passage of the enlarged diameter presented by the head and extended arms. As there are those who may question the practice of leaving the arms extended in this case, it may be well here to state that it was not with the object of experiment that Deventer's plan was adopted in this instance, but in part from the urgency of the case. The arms were above the head at the superior strait; pulsation had ceased in the cord; promptness in delivery was demanded, and in this extremity, Dr. B. recalled and relied upon the precepts of Deventer. As all present may not be familiar with the instructions of the old authority referred to, it may be well to state them in brief.

In his first edition, 1724, he says :

"Whereas all the authors that I know teach to the contrary, I positively advise that (in delivering by turning) the arms be left (extended) about the head, to be excluded along with it. In my practice, everything has succeeded very well by this method, not so much as one head having stuck in the mouth of the womb.

"If the head passes with difficulty, which seldom happens, you may draw down one hand or the other, but both hands are never to be drawn down; that would do more mischief than good.

"In turning in the early stage of labor, neither the mother nor the child are exposed to the danger of death.

"The whole matter (success in turning) depends upon two things :

"First, the proper introduction of the hand. Second, the greatest care should be taken that the head and arms pass together."

These citations from Deventer formed the basis of remarks made by Dr. Bartlett before the Gynæcological Society, in December last, in a paper entitled "A Lesson from Deventer."

In the case before us, the diameter formed by the head and arms of the child pressed against the temples, measured $4\frac{1}{2}$ inches, exactly the same as the transverse diameter of the inferior strait, a relation demanding, even in this undersized child, a compression of soft parts. In conclusion, I will quote some figures from Scanzoni, the well-known German author, relating to the frequency of multiple births.

From a table taken from the registration of births in Prussia, between the years 1826 and 1849, a period of 23 years, it would appear that there were 13,360,575 births. Of these, there were 149,964 cases of twins, 1,689 cases of triplets, and 36 cases of quadruplets. In other words, there were twins once in 89 cases, triplets once in 7,910 cases, quadruplets once in 371,126 cases, and no case of a higher number appeared upon the record.

AUGUST 1, 1883.

After reading the "Trio of Triplets" paper to the Chicago Medical Society, other cases of triplets occurred in this city, and as there were some points of interest in them, I subjoin a brief description of these cases, also, some points in a case of triplets occurring at Mendota, Ills., two years ago.

CASE ATTENDED BY DR. J. TASCHER, corner Ashland and Chicago Avenues.

Parents German, residence, 82 Emma street; married 13 years. Father August Vogt, 41 years of age, a little under the medium size, and by occupation a blacksmith. Mother Frega Vogt, 32 years of age; good size and stature, blonde, with blue eyes. She has given birth to nine children, two boys and seven girls, including the triplets. No history of multiple births in the family.

On the morning of June 20, at about 6 o'clock, pains came on and Dr. T. was called to her. On examination the membranes were found to be ruptured, shoulder presentation, with one hand in vagina. At the side of the shoulder was felt what seemed to

be one or more hands covered by an unruptured bag of waters. This in connection with the excessively large uterus, led to the conclusion that twins were forthcoming. It was thought best to administer chloroform, but an examination of the heart revealed a mitral deficiency, so the administration of chloroform was dispensed with for evident reasons. Podalic version was performed with but little pain to the patient. Almost immediately after the feet were brought down No. one was born.

On examination found a second bag of waters and a hand presenting, ruptured the membranes and turned No. two without difficulty, after which it was born without further assistance.

The uterus being still quite large and pains energetic, examination was again made, and this time a vertex presentation was found, with membranes intact. These were ruptured and No. three was born without further delay.

After this a drachm of fld. ext. ergot was administered and used Crede's method to insure uterine contraction. In a short time three separate placentæ were expelled. But little hæmorrhage followed, barely enough to soil the clothing. Labor was completed in about an hour after the first child was turned. The three female children were born before 8 o'clock A. M.

The babies weighed respectively at birth 5 lbs, 5½ lbs, and 5 lbs, aggregating 15½ lbs.

Mother kept her bed nine days, when she was about the house. Says she was about two weeks short of full term. Had swelled feet two weeks before the babies were born, but otherwise was quite well, thinks this very much the easiest labor she ever had.

CASE BY DR. P. J. ROWAN, 138 S. Desplaines street.

Parents are Irish-American born.

Residence, 608 Dickson street.

Father, James Quigley, is 30 years of age, medium size, good stature, weighs about 180 pounds.

Mother, Kate Quigley, is 27 years of age, rather small in size and stature, not weighing over 100 pounds; black eyes and dark complexion.

Has given birth to three children before the triplets; one boy and two girls, and now three girls.

Pains began at 1 o'clock P. M., July 8, 1883, and Dr. R. was sent for. Upon arrival it was found that the pains were light, but had been quite effectual, as the os was well dilated. The membrane was ruptured, and at 5 P. M., the first female child was born without difficulty. Another membrane engaged in the os was ruptured, and at 5:15 P. M. the second girl was born as easily as the first. These two were foot presentation. At 5:30 the third girl baby was born, this presentations being cephalic. A drachm of ext. ergot fl. was administered, and in a few minutes the placenta came. It was in two parts; one was by itself, except being connected to the other mass by a small, thin sheet of membrane, which easily gave way and was not vascular. The other two were in one mass, with fissures or notches on each side, midway. But there is perfect anastomosis, as the two are melted together.

The chorions and amnions were separated, and each sac seemed to contain as much liquor amnii as is found in ordinary single cases, thus giving the mother a remarkably disproportionate size. The uterus contracted well, so that there was only slight hæmorrhage.

At the birth of her first child, some years ago, there was a laceration of the perineum reaching quite to the sphincter ani muscles, which still exists. This may account for the easy expulsion at this time, while forceps have been used in the previous births. Patient has made a good recovery, being in bed about ten days. The first baby weighed $4\frac{1}{2}$ pounds, the second $3\frac{3}{4}$ pounds, the third $3\frac{1}{2}$ pounds, a total of $11\frac{1}{2}$ pounds. The third born child died three days after birth, the second five days after birth, both from inanition. The first born lived twenty-three days and died of convulsions.

CASE OF DR. J. W. EDWARDS, MENDOTA, ILL.

Parents Irish.

Father, Mr. C., is Irish-American born; 36 years of age; 5 feet 10 inches in height, and weighs 180 pounds.

Mother, Mary C.; native of Ireland; 35 years of age; medium stature, weighs 150 pounds, is mother of eleven children, having

had four boys and four girls before the triplet girls, this being her ninth labor.

At 2 o'clock A. M., June 3, 1881, patient was awakened by pains which increased in frequency and force, and at 3 o'clock Dr. E. was called.

The membranes were found to be ruptured, and the child's head engaged at the superior strait. This was a vertex presentation.

A few severe pains completed the delivery of a female child at 3:30 A. M.

Finding the uterus still larger than at full term, and evidence by motion of the presence of a second child, using gentle circular friction, pains came on and membranes engaged in the os. They were ruptured and vertex presentation determined. After a few pains a second girl was delivered at 4:20 A. M.

It was found that the womb was still as large as in a case at full term, and a third examination detected another set of membranes presenting. These were ruptured as before, and after three pains the third female child was delivered at 5:20 A. M. This was a vertex presentation.

The uterus contracted down well upon the expulsion of the third child, and in about fifteen minutes placenta No. one was thrown into the vagina and removed. Immediately following was Nos. two and three, partially attached to each other by membranes, all presenting a separate cell and cord, each placenta was a little more than half the usual size of the average single case.

The weights of children were for No. one 6 lbs, No. two $7\frac{1}{2}$ lbs, and No. three 7 lbs, aggregating $20\frac{1}{2}$ lbs.

There was only the usual hæmorrhage, and the labor shorter than any of the eight preceding, as the children were always large, averaging ten pounds, and the first and second stages of labor were never less than the whole time required in the delivery of these three children. Patient was, however, slower getting up at this time, but recovery was complete. No history of twins or triplets in the family. These triplets are now two years old and well.

Condensing from these six cases, we find the nationality to be two German, one Swede, two Irish and one American.

Five of these cases were females, while one case was males. There is no history of multiple births in families, except one patient's mother had twins.

In each case the labor was much easier and shorter than any preceding, and in no case was the hæmorrhage up to the usual amount. In three cases the placenta was common, with, however, separate cells, and in three cases the placentæ were separate.

In the six cases, there were nine foot presentations, eight vortex and one breech presentation.

Each patient has made a complete recovery.

Dr. L. H. Montgomery has reported to me a case of triplets, of German parents, in the summer of 1869, near Shullsburg, Wisconsin.

The case was a farmer's wife, some five miles from the town, and Dr. M. saw the case with his preceptor, and they were able to report everything favorable, and that none of them had gotten away, etc. When the second child was born, the mother fainted, and remained unconscious during the birth of the third child (only a short interval, however), and she was not aware of the birth of a third child until told of it, when she exclaimed in her teutonic dialect: "Das ist genug." The children possess unusual intelligence, and are foremost in their studies. The surnames of the two boys are John William and William John, the girl, Sarah. There are such strong resemblances in the boys' facial features that their most intimate acquaintances have to turn them around to recognize them, which is often done by school mates. They are all quite well, and, as above stated, are unusually bright.

243 N. CLARK ST.

DRS. DE LASKIE MILLER and Wm. H. Bradley, of Chicago, are in Europe. Will return in September.

DR. R. L. LEONARD, of Chicago, is visiting on the Pacific Slope.

ARTICLE III.

ANIMAL HEAT AND ITS MECHANICAL EQUIVALENT. (Read before the Chicago Medical Society, July 16, 1883, by Dr. H. D. VALIN.)

Origin of Animal Temperature.—Although plants and cold-blooded animals are supposed to be of the temperature of the media in which they live, this is an illogical inference, for the elements of which living matter is composed have each their specific heat, and the sum of their specific heats should be the heat of the organism itself, which would thereby possess a temperature of its own even when the functions of life were suspended.

We know that while air, and even water, absorb but a small portion of the heat-waves which strike them, organic bodies, as well as the various minerals, absorb a much greater proportion. From the experiments of Leslie, and the later experiments of John Tyndall, it seems established that the heavier elements absorb more heat than the lighter ones, and this seems to account satisfactorily for the elevation of temperature of organic substances above the temperature of air and water, and may be looked upon as the primitive source of the respective temperatures of animated beings, and is probably the only source of heat in the lower organisms. Some experiments made by Tyndall, at Hind Head, in March of the present year, illustrate some of the facts of heat absorption and heat radiation thus:

At 6:50 A. M., the temperature of the surface of the earth was 25° F., that of the air four feet above was 6° higher at sunrise. At 9:30 A. M., the temperature of both was 30°. At 2:30 P. M., the temperature of the earth was 58°, and that of the air was 48°. So that while both were equally exposed to solar heat, the earth absorbed several degrees more of it than the air did, and this is probably in direct proportion to the greater specific gravity of earth compared with air.

The ordinary source of heat is chemical affinity—generally the process of oxidation, and there is no doubt that solar heat has a similar origin. But chemical affinity taking place within the organism, produces the same amount of heat that it would in purely inorganic compounds of the same elements when they

mix chemically. Heaps of barley in the act of sprouting generate several degrees of heat, because in germination a chemical process of oxidation of the starch of the seed takes place, thus :

$(C_{12}H_{20}O_{10})_{24} + O =_5 (C_{12}H_{24}O_{10}) +_{12} CO_2$ (Bessey), and glucose is formed, which is assimilated by the developing embryo.

A similar process accounts for the unusual rise of temperature observed in some flowers during fertilization. According to Sach, a thermometer placed in the spathes of some of the Arales, the Calla lily (*Richardia Africana*), and the wild turnip (*Arisaema*), indicates a rise of from five to ten degrees C. above the temperature of the atmosphere, while fecundation is taking place. It is well known that in the Angiosperms the pollen grains germinate on the moist surface of the stigma, so that germination and fertilization are very nearly the same process.

"Dr. Carpenter suggests the probability of extraneous forces, as heat, light and chemical affinity, continuously operating upon the material germ, so that all that is required in this is a structure capable of receiving, directing and converting these forces into those which tend to the assimilation of extraneous matter and the definite development of the particular structure." (Grove). The action of the germ is thus reduced to one of catalysis.

But as the individual heat of plants is mostly a result of oxidation, so in the animal economy, all other sources of heat but oxidation may safely be laid aside as of no appreciable causal relation to activity of any kind.

TEMPERATURE OF COLD AND WARM-BLOODED ANIMALS.—In the cold-blooded animals the temperature of the body is always slightly higher than that of the water in which they live, and according to Milne-Edwards, the temperature of bonitos is ten degrees C. above that of water; *Palamys sarda* has a temperature of 5°, and the proteus of the Adelsbergerh grotto has one of 5.6°. Some species of python, while depositing eggs, have a temperature of 6°. Insects at work, as bees in the hive, also give rise to a considerable elevation of temperature.

The temperature of the following warm-blooded animals is in

Man,	-	-	-	36-38° C.	98-99° F.
Dog,	-	-	-	89° "	102° "
Sheep,	-	-	-	40° "	104° "
Birds,	-	-	-	42° "	107.6° "

Hibernating animals generally present a temperature almost identical with that of the atmosphere, thus becoming for the time cold-blooded (Semper). A fall of temperature arrests vital activity, as it does chemical actions, causing in organisms sleep, and death even, if carried to a certain point, which varies with the species and also with the latitude, but within comparatively short ranges. A rise of temperature produces nearly similar effects on animals, and there are summer sleepers in the tropics as there are winter sleepers north, among a number of species, as observed by Darwin. Semper, who is authority for the foregoing statements, and has investigated the subject of animal heat to quite an extent in "Animal Life," expressly states that "the general identity of the influence exerted by a reduction of temperature, both in high latitudes and equatorial regions, is not to be disputed. This consists in the fact that every reduction of temperature below the optimum, whether that optimum be high or low, so diminishes the vital energy of many, though not of all animals, that they gradually fall asleep, and remain in a condition resembling sleep as long as the low temperature, which induces that condition, lasts."

But it is a necessary sequence of the law of correlation that, within certain limits, solar heat may be transformed within the organism into vital energies, as it is into chemical affinity with so many inorganic substances.

Nature of Heat.—Says Grove, in "Correlation of Physical Forces," "matter has pertaining to it a molecular repulsive power, power of dilatation, which is communicable by continuity or proximity. Heat thus viewed is motion, and this molecular motion we may readily change into the motion of masses, or motion in its most ordinary and palpable form."

Whenever heat is applied to the elements they dilate and expand from the solid to the liquid, and from this to the gaseous state, if the heat is sufficiently great; but no matter how little heat is applied, a certain expansion will be the result. This ex-

pansion or motion often results in the decomposition of the body acted on, and Grove says: "There seems some probability of bodies now supposed to be elementary being decomposed, or resolved into further elements by the application of heat of sufficient intensity."

But, solar heat and light, stored in the cellulose, starch, sugars, and albuminous compounds of plants, become transformed within the plant into vital action subsequently; and as this action or motion serves to transport the seeds to a distance, or serves the purpose of reproduction, it favors the vitality of the organism and is not a dissipation of energy. Whenever the plant furnishes animals with food, the fertilization of the former, its dissemination and cultivation are often thereby insured, and thus has an unconscious partnership of plants and animals been formed by the process of natural selection. But in either case heat and light become transformed into vital energy; and accordingly, heat, as such, is perhaps the most important factor of life, but it is stored in plants (starch) and in animals (adipose tissue), not as heat but as chemical affinity, in the same manner that electricity is stored in the form of oxidation in the storage battery.

Further considerations regarding the nature of heat suggest that heat is that amount of motion which is liberated by a mass whenever its molecules vibrate in a shorter path or with less rapidity than in a previous time—heat would thus be part of the primordial motion with which matter is endowed and whose quantity in the universe remains the same for ever.

Mechanical Equivalent of Heat.—The different modes of force being all interchangeable, a definite amount of one produces a definite quantity of another, and these quantities are all constant, for force is indestructible.

Accordingly, the amount of work which will result from the combustion of a given quantity of coal in the furnace of a steam engine can easily be determined, and on the same principle the amount of work which will result from the combustion of a pound of food in the animal economy can be ascertained with small chances of error.

The mechanical equivalent of heat, as first ascertained by Dr. J. R. Mayer, is that the amount of heat necessary to raise the

temperature of a given weight of water one degree C. will mechanically raise the same weight to the height of 867 metres in four seconds—or a kilogramme of water which has fallen 867 metres and whose fall is arrested when its velocity was 85.88 metres in one second, will be raised one degree C. in temperature. Therefore, according to Mayer, a caloric is 92 metres-kilogrammes a second. But these numbers are not quite accurate.

It was ascertained by Joule that the quantity of heat necessary to raise one pound of water one degree F. was equivalent in mechanical work to 772 footpounds. But as the time is not specified, in works in which the above has been copied, this unit is about useless. Although no notice of the time need be taken in measuring units of heat, in units of work, time is of the greatest importance.

Thus, a *horse-power* is reckoned as a pound raised 550 feet a second, or 33,000 feet a minute. In Ganot's *Physics* (16th French edition), a horse-power is stated as 75 kilogrammes raised one metre in a second. But the above, which is the American standard, translated into metric figures would approximate 85 kilogrammes metres, a discrepancy which is only equalled by the French caloric of 425 kilogramme metres compared either with Joule or Mayer's unit.

"It has been established by numerous experiments that the combustion of one kilogramme (about two pounds) of dry charcoal in oxygen, so as to form carbonic acid (CO_2), yields 7,200 units of heat. Superior coal yields 6,000; perfectly dry wood, from 3,300 to 3,900; sulphur, 2,700; and hydrogen, 34,600 units of heat."—(Mayer).

It is well to state here that whenever combustion takes place it is in the air, unless otherwise specified, and the heat is always the result of chemical action—oxidation. The following have been ascertained by Dulong: One gramme of olefiant gas raises 12,000 grammes of water one degree C. by its combustion. Alcohol raises 6,900 gr. degrees; olive oil, 9,862. And it is probable that a part of the alcohol taken into the human organism becomes oxidized, and produces heat and activity to a marked degree.

The following is a table of the heat units generated by the

combustion of a gramme of different substances (Silbermann and Fabre), compared with other data :

	H. units.	Formula	At. wgt.	Spec. h.
Oxygen .....	.....	O	16	0.2175
Chlorine.....	.....	Cl	35.5	0.1209
Hydrogen.....	.....	H	1	2.4
Hydrogen with chlorine.....	23.783	H Cl	18	.....
Oxygen with hydrogen.....	33,462	H ₂ O	6	1.00
“ “ oil of turpentine	10,852	C ₁₀ H ₁₆	5.2	0.259
“ “ ether	9,027	C ₄ H ₁₀ O	49	0.479
“ “ charcoal.....	8,080	C	12	0.241
“ “ alcohol.....	7,184	C ₂ H ₆ O	5	0.453
“ “ carbon oxide...	2,403	CO	14	0.24
“ “ sulphur.....	2,262	S	32	0.2025

The atomic weight of a compound is calculated by multiplying the atomic weight of each element by the number of atoms, adding the results, and dividing by the number of atoms ; and a glance at this table will show that the best combustibles are of low atomic weight—that the degree of heat produced in combustion is in proportion direct to the specific heat of the substance used, and hence in inverse ratio to its atomic weight ; so that we should have in the atomic weight of any substance an index of the amount of work which a pound of it could produce when consumed in the animal economy, or in the furnace of a steam-engine.

The degree of temperature at which a substance is oxidized is correlated with the time of combustion, and the result is constant ; so that a cord of wood rotting in the damp produces the same quantity of heat that it would in burning. And the oxidation of a pound of oil in the human body produces the same amount of heat that it would burned in a lamp.

Food Energy.—“Broadly speaking, the animal body is a machine for converting potential into actual energy. The potential energy is supplied by food ; this the metabolism of the body converts into the actual energy of heat and mechanical labor.”—(Foster.) This author in his “Physiology” gives the following data on the authority of Frankland :

The direct oxidation of the following, dried at 100 C., gives rise to—

	GRAM.-DEG.	MET.-KILG.
1 gram. Beef fat.....	9,069	3,841
1 " Butter.....	7,264	3,077
1 " Arrowroot.....	8,912	1,657
1 " Beef-muscle.....	5,108	2,161
1 " Urea	2,206	934

Supposing that all the nitrogen of proteid food goes out as urea, 1 gram. of dry proteid, such as dried beef-muscle, would give rise to about about $\frac{1}{2}$ gram. of urea, and would therefore give as the available energy of proteid, 4,368 grammes of water raised 1 degree C., or 1,850 metre-kilogrammes. In a normal diet would be found:

	GRAM.-DEG.	MET.-KILG.
100 gram. proteid, -	436,800	185,000
100 " fat, -	906,900	384,100
240 " starch, -	938,880	397,680
440	2,281,580	966,780

In round numbers, the food taken daily contains one million metre-kilogrammes of potential energy, between one-fifth and one-sixth of which is expended as mechanical labor (Foster).

Dalton differs somewhat from the precedent, and states the daily quantity of food of an optimum diet for a man at 130 grammes of proteid, 300 of starch, and 100 of fat; and the following table shows the relative increase of nitrogenous and non-nitrogenous matter of the food under different conditions:

	NITROGEN.	NON-NITROG.
Bare subsistence diet, -	100	100
Full diet, -	180	147
Diet of active laborer, -	232	155
Diet of hard-worked laborer, -	242	169

Taking the average composition of albuminous matter, fat, and carbo-hydrates, we find that a man under ordinary full diet takes into his system daily the constituents of the food, in round numbers as follows:

	GRM.	C.	H.	O.	N.	S.
Albuminous matter	130	70	10	29	20	1
Starch	300	134	18	148		
Fat.....	100	76	12	12		
	530	280	40	189	20	1

When the carbo-hydrates are not burned in the economy, they accumulate in the adipose tissue for future use. Here a consideration naturally presents itself. The carrying of a coal bin on the human engine is useful only in as much as the carbon is used and renewed at definite intervals; otherwise it must prove a dead weight and a loss of animal energy. This gives a satisfactory explanation of the fact, that obese people are lacking in strength and vital energy, and that an active mode of life, although at first difficult to undertake, proves the best cure for their multiform ailments, and should always be part of the treatment of obesity.

Animal Strength.—According to Hirn, in a state of repose a man consumes per hour 30 grm. of oxygen (which must unite with about 11.5 grammes of carbon in the body), which produce 150 heat units which go to keep up life; while one hour's work on a treadmill required 150 grm. of oxygen (56 grm. carbon), which produced 750 heat units, 500 of which went for maintaining life, while 250 heat units represented an hour's work. The amount of oxygen breathed during work was thus five times as great as during rest. On the basis of these data, an amount of food equivalent to 9 oz. of coal is sufficient to support life daily, and this is about the quantity of carbon taken in the food.

During work there must be about $\frac{3}{4}$ of a grain of carbon burned in the human body, every second, and the oxidation of 11 grains of coal in man produces one unit of heat available for work, while the same energy would result of the combustion of $2\frac{1}{2}$ grains of coal in air. Therefore, less than one-fourth of the available heat is turned into actual work.

From data contained in "Appleton's Cyclopædia of Applied Mechanics," we learn that the American boat engine, with a net power of 1,446 horses, consumes four pounds of coal per horse-

The *Scientific American* has also published the following statement: "There is no case of smallpox, as of 5000 people in the whole of the country. There is only one of 50 in the whole country, as in the case of 2000 people in the whole of the country." The *Scientific American* has also published the following statement: "There is no case of smallpox, as of 5000 people in the whole of the country. There is only one of 50 in the whole country, as in the case of 2000 people in the whole of the country."

In his experiment on dogs, Senator found that while 18.8 units of heat were produced soon after a meal, in one hour, the same animal produced only 10.9 in the same length of time after fasting 2 days.

Correspondence of Animal Heat and Work.—Horvath, in his observations on marmots, found that the internal temperature of the animal when awake was from 35° to 37° C., while in the hibernating condition, it was reduced to 10° , 9° , or even to 2° , according to that of the surrounding air. On awaking, the temperature rapidly rises, so that here vitality is equivalent to a force which would heat the volume of the animal's body to 35° C. and maintain it at that temperature.

The subject of Draper's experiments, mentioned above, weighed 180 pounds—about 30 more pounds than an average. The weight of Hirn's is not mentioned. Draper's man produced in an hour's time 38 more units of heat than Hirn's at rest, but 572 units less than Hirn's subject at work. The 38 units in the first case most probably represent the amount of heat produced in the human body to make good that lost in heating the cold water of the bath. This experiment is very crude at best, and it is strange that Dalton cites it and omits those of Hirn. At the same time, the experiments of Draper give evidence to the fact that the human body, while keeping its normal temperature in a cold medium, does so at a definite amount of internal work, which increases as the temperature decreases in the surrounding medium.

Should Hirn, instead of causing a man to raise his own weight on a tread mill, have given him some mental work to perform—some problem to solve, or some speech to prepare, he would have thus ascertained the mechanical equivalent of thought, which has been ascertained in another manner at least as delicate, which we will soon describe.

Just as a part of the heat of a furnace is lost before the water in the boiler begins to dilate into steam, so in the human machine, the temperature of the body increases even more than one degree during work (Jürgensen).

Another important fact has been ascertained by Beclard. This experimenter found that when one raises a weight the heat thereby

generated in the muscles of the arm is much less than that produced by the same muscular contraction without weight. For, in the latter case, the heat fails to become work and must appear as a rise of temperature.

This satisfactorily explains the fact often observed that violent delirium takes place with but a slight rise in the body temperature, while the highest temperatures accompany a low muttering delirium. The first condition is especially common in traumatic delirium, delirium tremens, and the delirium of any form of meningitis. Here, as in Beclard's observations, the heat generated in the circulation becomes transformed into the work of delirium, a small portion only being appreciable as heat.

This delirium, or external work, seems to be beneficial in such cases, inasmuch as it forms an outlet for the excessive amount of heat produced by the rapid chemical changes which take place in the human body under the influence of certain diseases. And, in cases of high temperature, the efficacy of cold so applied to the body as to absorb its heat, is in this same manner rationally explained. So is the soothing influence of muscular exertions in cases bordering on acute mania thereby explained; the internal heat is transformed into well regulated muscular action, instead of appearing as disordered nervous work.

Psychometry.—There can be no doubt that by ascertaining the rise of temperature in the brain during the act of thinking, the mechanical equivalent of the thought could be accurately established, but thought has been measured by means of the plethysmograph, invented by Dr. Mosso, of Turin, prior to 1876.

This instrument is calculated to measure the amount of blood consumed in the acts of the mind. It indicates through a fluid medium the increase and decrease in the volume of an organ under various stimuli. When the forearm is tightly inclosed in a cylinder of water to which communicates a rubber tube, any variation in the volume of the forearm is indicated by the pressure of the water in the tube, and an indicator records the variation. But it is found that variations of volume in the forearm are correlated with the increase and decrease of blood supply to the brain—the circulation increasing in the extremities, it decreases in the brain, and *vice-versa*.

Accordingly, the plethysmograph indicates how much more blood is consumed in one person's brain while solving a problem than in another working at the same. Even the mental impressions made on the subject by the presence of certain persons have been measured by that delicate instrument.

802 S. HALSTED ST.

ARTICLE IV.

EXTERGE OCULUM. By C. R. EGGEMANN, M.D., Surgeon to the City Eye and Ear Clinic of Detroit, Mich.

As there is no literature on this subject, I will proceed to give the history of it. Dr. Liebold, of New York, uses this method with very few exceptions, which will be spoken of later on. Patients who had enucleations performed complained that the artificial eye had not sufficient motion, as there was not stump enough to give the requisite amount of motion expected by them. This induced Dr. Liebold to use this method, and I look upon him as the inventor of this operation, he having taught and practiced it for many years. The indications for the operation I will give in the Doctor's own words: "I regard all those for good, in which enucleation is practiced, except in cases of intra-ocular tumors, or where a tumor has invaded or is liable to invade the sclera."

The steps to the operation are as follows: The patient being anæsthetized, the lids are held apart by a stop speculum, and the bulbus firmly with the fixation forceps, then the eye is transfixated with a Graafe knife in the horizontal diameter, about two lines from the sclero-corneal junction, or posterior to the ciliary body, then cutting either upwards or downwards as the operator thinks best; the fixation forceps are removed after completing the incision, the flap is grasped by the same, and the remaining portion is cut away with scissors curved on the flat. The principal point is to remove all the ciliary nerves from their entrance into the carpus ciliare. Then interior of the eye is *wiped out*, as it were, with small pellets of lint, the latter being held with the fixation forceps, removing thereby the retina, choroid and ciliary nerves, leaving nothing but the white sclerotic with the muscles attached

The conjunctiva can be united with two sutures over the opposite recti muscles, or the sutures can be omitted and the sclera allowed to become glued together by the proliferation of cell elements. The after treatment consists in cold water dressings, or the application of an icebag. Apply as long as patient feels comfortable with it, being guided by the feelings of the patient. There is no trouble from secondary hæmorrhage as it sometimes happens after an enucleation, in cases where the arteries are diseased, for in the former the arteries entering the eye are twisted by the motion of wiping out the eye, while in the latter they are cut transversely. The swelling is inconsiderable and subsides soon. The stump is larger and moves better, as all the external muscles remain in their original position. The objection that an artificial eye will irritate easier is groundless, if it is too large it will irritate the branches from the nervus naso-ciliaris, whether the sclera is preserved or not.

What spurred me on to write this article, is the limited experience I have had with this operation. Jno. K., æt. 37, laborer in the car shops of Detroit, was hit in the right eye with a piece of wood, July 24, 1882. He came to my office a week later to consult me. Status præsens, right eye, chemosed conjunctiva protruding from external canthus, cornea had been ruptured in the whole horizontal diameter, and became agglutinated again, iris adherent to inner surface corresponding to the laceration of the cornea. Tension. Complaints of terrific pain in and around eye. Left eye shows signs of sympathetic irritation, conjunctiva considerably congested, profuse lachrymation, iris contracted, but responds well, also photophobia present. Advised enucleation, explaining to him the danger he was in of losing the left, his sound eye, to which he willingly consented. Assisted by Mr. Sommers, then a medical student, I proceeded to operate. Ether was given to him to blunt the sensation, I applied the speculum, and had completed the circular cut through the conjunctiva around the cornea previous to detaching the muscles, when an accident occurred, caused by the patient holding his breath, which opened slightly the old wound, allowing the contents to partially escape. Knowing that I could not use the strabismus hook to lift up the muscles without having the eye collapse, the teachings of Dr.

Liebold came to my rescue. Instead of enucleating as I intended, I *wiped* the contents of the eye out as above described. I did not apply any sutures. The after treatment consisted in cold water dressings. Fitted the patient with an artificial eye two weeks after the operation. The movements are good in, out, up or downwards. I have seen the patient several times since, and he is well pleased, saying that he has motion to the artificial eye, while a fellow workman, who had an enucleation performed, has not any. So much for an accident. Hoping this operation will in time supersede enucleation and optico, ciliary neurectomy, or any of the operations for total staphyloma of the cornea, I will close with a few remarks on the title of this subject. Dr. Liebold has named the operation "Evacuatio Bulbi." We have the contents of the eye escaping in the operations for total staphyloma of the cornea, and I think this title does not apply to the operation as well as the one I have selected, namely, "Exterge Oculum," which means, *wipe out the eye*.

170 RANDOLPH STREET.

ARTICLE V.

POSTPARTUM MALARIAL FEVER. By P. D. BURDICK, M.D.

In this zymotic country, where it would appear at times as though scarcely any animal life is free from their noxious influence, where can be traced evidences of them in nearly every species of disease peculiar to the climate, many disorders deriving their first cause from the contaminating influence which they are supposed to exert, it could scarcely be deemed presumption in one if he were to pause in his wonderment at their universality and the part which they are presumed to play in the etiology of disease, and ponder if, indeed, they are not the prime factor in all the ills which flesh is heir to.

Vague and unsatisfactory as our understanding of miasm is, the term malaria, dedicated to express a condition easier conceived than demonstrated, one that, had not the orthodox definition of that spring in the human breast, described as the substance

of things hoped for, the evidence of things unseen, been so long associated with the word used for its appellation, it might be misjudged which it was intended to define, faith or malaria.

To question its nomenclature is to call into question the existence of the hypothetical germ itself, which, at the present stage of our knowledge, one might as well doubt his catechism. It would but expose the "doubting Thomas" to well trained batteries filled to repletion, or place him among the unenviable list of nihilists or heretics, taught in the amphitheater and laboratory that the baneful effects of a fog are due not to the fog itself, but to an impalpable molecule of decomposed vegetable matter, so disguised and tucked away within the little humid sphere as to be beyond the ken of the chemist.

Though analytical chemistry can draw a line so fine among particles of matter as to determine where the atom leaves off and where the molecule begins, and teaches us that the smallest division of matter that can exist in a free state is a molecule; that the surrounding *melia*, termed atmosphere, is made up of oxygen, hydrogen, nitrogen, carbonic acid gas, impurities, etc., giving the exact proportion of each, yet fails to take the fog, which can be caught in a hat, or collects itself all over every thing exposed to its misty sheet, and explain to us what this miasm is that we hear so much of floating around in its vehicle of moisture and what, indeed, are its generic forces.

Professor Salisbury displayed a commendable disposition in catching some vapory emanations upon some fragments of glass and analyzing them, establishing the fact, seemingly to his own satisfaction, that the form of fever generally denominated malarial is the result of the introduction into the system of spores or cells of certain species of algoid plants, termed *palmellæ*; but it has been a long time since Professor Salisbury and his pieces of glass were heard from, and the impression pretty generally prevails that the only well authenticated point which the professor succeeded in thoroughly establishing is the fact that he was a little too previous.

It is a custom fairly observed when discussing medical topics, and reference is made to the ancients, to do so with a degree of charity, and it is not our plan to break in upon this time-honored

custom of the faculty, or to infringe upon any of the established precepts nor trample upon well regulated rules.

When the subject of malaria is thrust upon us our thoughts naturally wander back to that period when, to use the parlance of to-day, the indications of the barometer would have signaled a lowering temperature, and at such times there might have been seen creeping up and down the banks of the inner seas among the bayous and fenlands of that oriental country, wherever the low lands and capricious ill winds favored, bearing with it seeds of fever, which in those days meant depopulation and death, a dense heavy mist or fog.

And when I contemplate on this fevered element a responsive chord in my sympathetic nature is touched, for that people who were so unfortunate as to have existed at a period when the best science of the times attributed a plague which should follow in the wake of a prevailing mist, to the wrath of an offended God ekeing his vengeance out upon them, because of their sins, either of omission or commission, and what is indeed sad, that they should have passed away—gone down to their graves—without ever having heard of the zymotic theory, without ever having learned that their revengeful God wasn't anything but a fairy-like tale of zymots in a fog.

How pleasant would have been the task had it fallen upon, or had it been within our province to acquaint them of all this, providing their natures were not so inquisitive as to insist upon knowing just exactly where the zymotic part of the fog came in.

But I had purposed speaking briefly of a fever which has been producing more or less havoc down in our part of the country; a fever which for convenience sake I shall pass under the *nom-de-plume* of postpartum malarial.

It has been my experience, if the parturient woman is in any way suffering from sluggish secretory organs; if the hepatic circulation is impeded in consequence of engorgement, which I find to be particularly common among females during gestation in this climate, and as a result impaired secretion, indigestion and assimilation; if this condition of things be not critically looked after before and up to the time of labor, the exertion, overwork and shock, which the patient from the very nature of things sus-

tains from the parturient act is very apt to result in what in my judgment is the sequel of it all, a fever.

The immediate danger of which lies not so much in the fever itself if properly handled, as upon an error in diagnosis, which one is very prone to make, owing more particularly to the character which the lochia assumes upon the incipency of the pyrexia, leading one to believe that the abnormal increase of temperature is wholly dependent upon, and the result of, the absorption into the system, through the exposed vessels of the uterus, of putrescent matter or lochia seriously altered in character.

If this idea is allowed to prevail, and medicines adopted calculated to meet seemingly the marked indications ascribing the constitutional disturbance to purely a local cause, there is danger ahead.

I am misinformed if there have not been some twenty lost in a little city where I had been summoned not long since to see a lady suffering with this malady, which has come to be looked upon by the women of that section as a scourge, dreading the approach of labor with the horror almost of death.

Clinical history discloses the following :

They may feel comparatively well, and it is not at all uncommon for them to have enjoyed good health up to the time labor sets in ; but as a rule they suffer occasionally from slight attacks of biliousness previous to this, generally, in their belief, too slight to justify consulting a physician.

Two, three, or perhaps more days even may elapse after labor—which, supposing it to have been propitious, is over—before any untoward symptoms become manifest. Up to this time, I repeat, in substance, there may not have been a single symptom, or but a single symptom which would cause the accoucheur to anticipate any change in the condition of his patient, or that could possibly lead him to suspect any unfavorable turn in the case, and it is only from my own experience that I can speak in regard to this, and that is the appearance which the tongue presents, which may be said to have to be seen in order to be fully appreciated, for its general characteristics are subject to modifications altogether owing to the temperament of the patient, hence no one feature is invariably present, but as a rule a dark viscid coat is noticeable

on its posterior aspect, and this may or may not be accompanied with a slight sallow, tawny, or dirty hue of the skin.

Rigors announce a sudden change in the history of the case. The countenance takes on a pinched and anxious look, in time becoming wearied, as though something appalling was about to come to pass.

The lochia, from this time on, either ceases altogether or becomes scanty and green; more or less tenderness supervenes over the womb and its appendages, in some cases becoming so severe as to necessitate the adoption of active, energetic measures intended to relieve the pain, at other times so slight as not to give rise to any particular inconvenience.

The pulse rises rapidly, assuming a wiry, vibrating movement, the thermal register indicating great increase of temperature. In fact, there is every evidence of septicæmia, and so rapidly are the symptoms incident to this condition developed, that unless the physician has taken cognizance of the real condition of things, or should he fail to immediately after the decided change takes place, the case receives only such treatment as is calculated to meet the indications of the already alarming symptoms.

The treatment generally adopted for blood poisoning is instituted, antiperiodics in heroic doses, and the overloaded secretions are lost sight of for antiseptics and diffusible stimulants. Cardiac sedatives are used sparingly, sinking spells occur and recur, fear takes possession of the patient, and generally within from two to four days, with varying symptoms, it becomes painfully apparent that her forebodings are only too well grounded, and not the product of a perturbed mind or the hallucinations of a fevered brain, as evidenced by the flagging pulse, the failing strength.

A few more sinking spells, stupor supervenes, the curtain falls, the scene closes, and death claims its victim.

THE masterly article written by Dr. E. W. Jenks, and published in the Gynaecological Transactions, on "The Practice of Gynaecology in Ancient Times" has been translated into German, and appears in a recent number of the German "*Archives of the History of Medicine.*"

Hospital Reports.

ARTICLE VI.

COOK COUNTY HOSPITAL REPORTS. REPORTED BY DRs. E. P. DAVIS AND C. E. CURRIE. ATTENDING PHYSICIAN, DR. McWILLIAMS.

Name, A. L., civil state M., Race W., age 40, occupation laborer, nativity german, diagnosis insolation. Admitted July 3, 1883, hour 4:50 P. M., discharged July 5, 1883, condition recovered. Service of Drs. McWilliams and Buchan, C. E. Currie, House Physician.

While at work, patient suddenly fell unconscious, and was taken to the hospital by police patrol wagon.

On his arrival at 4:50 P. M. his temperature was 107.5° axillary. Face pale, lips and finger tips bluish in color, pupils contracted, respiration stertorous; the surface of the body felt intensely hot; bowels had moved involuntarily.

He was placed in a wet pack with ice in the axillæ, groins, and at the back of neck. Pieces of ice were then rubbed outside of wet sheet over the abdomen and chest.

5 P. M., 108° rectal. Gave a large enema of ice water morphinæ S gr. $\frac{1}{2}$ hypodermically. Gave spts. frumenti hypodermically as his extremities became cool.

6:30 P. M. Patient had a tonic spasm and remained in opisthotonos for about three hours. The muscles of his jaws were firmly contracted. Constant twitching of the eyelids. Patient was removed from pack and placed in bed.

July 3, 7:00 P. M., 102.5° axillary. Gave quiniæ bisulph. grs. vi. hypodermically.

9:30 P. M., 104.5° rectal. Placed in wet pack and applied an ice-cap. Patient to be removed from pack when temperature fell to 102°.

11:30 P. M., 102.8.

July 4, 1:30 A. M., 101.5°. Patient was taken from the pack and the ice-cap removed.

6:30 A. M., 74, 99.2°. Patient seems perfectly conscious, but will not answer questions. Pupils normal; respiration normal; is perspiring freely. R. potass. bromide grs. xx., t. i. d.

4 P. M., 72, 93.6°. Watch temperature.

5 A. M., 72, 99°. Patient is perfectly conscious and talks rationally. Recollects nothing which happened July 3. Discharged recovered.

ATTENDING PHYSICIAN, DR. BUCHAN.

Name, G. J., civil state S., race W, age 25, nativity Sweden, diagnosis insolation, admitted July 6, 1883, hour 9:25 P. M., discharged July 9, 1883, condition recovered.

Patient had received treatment before he was brought to the hospital. On admission he was in a wet sheet with pieces of ice about him. Extremities cold, pulse weak, temperature 104.5° rectal. Hypodermics of spts. frument. and morph. sulph. Muscular twitchings and tonic contraction of muscles of neck and back.

Patient was placed in a wet pack until temperature was 102°. Ice-cap was allowed to remain during the night and the next day.

July 7, A. M., 104, 101.4°. Patient has taken nourishment and answers questions rationally.

2:00 P. M., 80, 98.6°.

8:00 P. M., 80, 97.6 axillary. Complains of cephalalgia, potass bromide grs. xxx.. Remove ice-cap.

July 8, A. M., 88, 98.4°. Slight vertigo on attempting to walk; sal Rochelle ℥s.

7:08 P. M. 62, 99°.

7:09 A. M., 76, 98.4°. Discharged recovered.

Belladonna Poisoning from Atropia.—In the case of a boy aged 15, a solution of atropia, grs. iv. to the ℥, was used for keratitis, two drops were put in the eyes every five minutes for half an hour to secure thorough dilatation of the pupils. The application was made in the morning, and no constitutional effect was observed until early the following morning, when the patient became excitable, and very apprehensive of violence. He grew better at daybreak, and said that he had been threatened by an adult patient in the ward, whose bed he had shared during the night.

The dilatation of the pupils was maintained by atropia used sparingly during the day, the patient appearing as usual.

At evening well marked delirium occurred; the eyes were brilliant, the throat somewhat dry; the delirium was busy, ecstatic, and, when the patient was not restrained, happy. Restraint was finally necessary, and under the use of morphia hypodermically, the patient speedily recovered. Withdrawal of the atropia and its subsequent use in weakened solution were followed by no return of the delirium.

Tetanus Traumatic—Nerve Stretching.—A colored man, very muscular, on June 19, jumped upon a pile of boards, running a rusty nail half an inch into the sole of his foot. The wound became swollen and painful, and in a week after the reception of the injury, stiffness of the muscles of the neck was felt. On admission, trismus was well marked, opisthotonos followed, with convulsions. June 24, the great sciatic nerve of the affected leg was exposed and stretched by the house surgeon; temporary relief only followed.

Convulsions increased in frequency and severity; the temperature rose, and after an unusually severe spasm, the patient died July 2.

Chronic Cystitis, Cystotomy.—In a patient who had suffered for over six months with cystitis, incision into the bladder in the median line of the perineum was made; the finger was introduced, and the bladder explored. Its walls were found thickened, but lacculated stone was discovered.

Mild injections were employed, and free drainage maintained through the incision. The patient was greatly benefited.

Society Reports.

ARTICLE VII.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society held a regular and well attended meeting June 18, 1883, in their club room in the Grand Pacific Hotel, with Dr. D. W. Graham in the chair.

After the usual routine of business, Dr. Henry Ogden presented a valuable paper on Obstetrics. This topic was made more interesting and prolific by a carefully written report on a "Trio of cases of Triplets," and exhibition of a placenta in one of the births.

Report published in full in this number.

A supplementary report was given, wherein Dr. J. W. Edwards of Mendota, had kindly furnished Dr. Ogden a case of triplets three girls, born to Irish parents on the morning of June 3, 1881, in that city; there were three separate placentæ in this case, and the children are now two years of age, and all living.

In the discussion, Dr. Mary H. Thompson said she had been much interested in the subject, and thought the paper a good one.

Dr. Henry VanBuren said he had attended 100 cases of labor before he had a case of twins, and attended 300 births when the case of triplets occurred as reported in the paper. He thought there was a peculiar throwing power in the fundus of the uterus in triplet births. The contractions of the uterus were peculiar, and different than in single births, and the cords were shorter.

Dr. H. D. Valin thought there some omissions in the paper

that should have been further dwelt upon, especially regarding the history of the parent's parents.

Dr. C. W. Earle examined the case with Dr. VanBuren, in which there was but one placenta and three cords, and substantiated the report in the paper; he also reported a case occurring in the practice of Dr. White in 1879, in this city, where three male children were born, their aggregate weight being ten and a half pounds, but all died in three weeks of inanition; he thinks heredity has no influence regarding multiple births.

Dr. Houghton related a case occurring within his knowledge, of a woman giving birth to twins three times within the space of three and a half years.

Dr. J. H. Etheridge knew of a family in Canada, where in six confinements sixteen children were born, as follows: Four times triplets, and twice twins.

Dr. L. H. Montgomery knew a German family, residing near Shulsburg, Wis., where he formerly resided, and studied in his preceptor's office, in the summer of 1869. Dr. M. A. Fox then attended the man's wife, some five miles distant, and three boys were born. Just after the second boy was born, the woman fainted, and while in this state of syncope, the third child was born, when she recovered in a few moments, and upon being informed of the number, she expressed herself in Teutonic dialect, that, "dos ish kneuf." I visited the noble woman next day to see "if any of them had got away." She recovered rapidly, and so far as I know, the boys are yet living, and are about fourteen years of age.

Dr. E. Ingals, chairman of the committee appointed at the second previous meeting to confer with the Illinois State Board of Health relating to matters contained in the proceedings of the quarterly meeting of said Board, held in this city April 12, 1883, submitted the following report:

TO THE CHICAGO MEDICAL SOCIETY.

Your committee appointed to confer with the Illinois State Board of Health relating to matters contained in the proceedings of the quarterly meeting of said Board, held in Chicago, April 12, 1883, ask leave to submit the following report:

We desire to acknowledge the courtesy of the Board in furnishing us, from its official correspondence, all the information we desired relating to the subjects under consideration. The following from Secretary Rauch's report to the Board, could not escape the attention of the profession, and seems to call for some action on its part:

Proofs are on file that students are graduated without having studied the required length of time, or without having studied under a preceptor; who have attended only one course of lectures; who have attended two courses in one year, without the necessary reading period intervening; who were not 21 years of age at the time of graduation, and who, in general, are not at all competent to practice medicine.

While preparing this portion of my report, the following case in point presents itself. An official proceeding requires that Dr. —, a graduate of one of the most popular and widely-known colleges in the country, detail his acquirements in pharmacy. He is asked what experience he has had in compounding medicines, and replies that he has had none.

"Did you not put up prescriptions under your preceptor while a student?"

"No, sir; I didn't have any preceptor."

"Why, I supposed that medical colleges required that their graduates should have read or studied medicine under a preceptor for three years. How did you get through? How did you graduate?"

"Well, I attended two courses of lectures, paid the fees and got my diploma."

An examination of the files in the secretary's office resulted in finding the following communication from Dr. —, received May 20, 1882:

—————, ———, Ill.

To the *Secretary State boar of health* Dear Sir I sent you my *dipluma* early last March and have not head from it *sinc* did you receive it or do you know anything about it I am becoming quite anxious concerning its *saftey* My *dipluma* is from——— Medical College——— dated ——1882 I also sent

you a letter containing a one dollar bill to pay for the *certificate*
If you will give me the information I *request* I shall be greatly
obliged to you.

Yours very respectfully

M.D.

In the annual announcement of the college which issued this diploma, among the regular requirements for graduation one is stated to be "such primary education as is clearly requisite for a proper standing with the public and the profession;" and another that "he must have pursued the study of medicine three years." That the former requirement was ignored is obvious from the letter quoted; and it is probably doing no one injustice to accept Dr. ——— statement—that he "attended two courses of lectures, paid the fees and got a diploma," as full summary of his medical education, so far as the college was concerned.

As a result of my own official experience during the past six years, I think it entirely within bounds to say that a strict adherence to the advertised requirements is the exception among colleges rather than the rule. In fully three-fourths of those which have come under my observation, there have been irregularities of more or less gravity.

The charges that "students are graduated without having studied the required length of time, or without having studied under a preceptor; who have attended only one course of lectures; who have attended two courses in one year, without the necessary reading period intervening; who were not twenty-one years of age at the time of graduation, and who, in general, are not at all competent to practice medicine, are based on correspondence on file in the office of the Board, and on other evidence that has come to its knowledge. On first reading Dr. Rauch's report, we suspected that the Board had been imposed upon in the matter of the letter above quoted, and that it was spurious; for we did not believe that after the subject of a higher medical education had been as thoroughly discussed as it has been for a number of years, and the judgment of the profession in its favor was so pronounced and well understood, that any recognized, popular and widely-known college would, only one year since,

confer the degree of Doctor of Medicine on a person who would write this shameful letter. The history of this transaction is as follows: This graduate forwarded to the Board of Health his diploma, and with it his affidavit that he was the person on whom the degree was conferred. The diploma and affidavit would entitle him, under the rules of the Board, to receive without question his license to practice in Illinois. To his communication he neglected to append his address, and consequently he received no reply, and this circumstance in due time called out the above letter. Now, the signature to this letter and that subscribed to the affidavit, we know from personal inspection to be by the same hand. According to our statute and ethical laws this graduate is entitled to every right and privilege that is accorded to the most accomplished practitioner in the State, and only the accident of the omitted address brought the transaction to public notice. The following form, rendered in our own vernacular tongue, embraces the substance of the diploma issued by all of our medical schools:

"Whereas, it is an established usage to confer academical degrees on those whose character and knowledge entitle them to respect and confidence; know ye that ———, having complied with the requirements of our College, and given ample evidence of his learning and skill, we have by authority of the State of ——— conferred on him the degree of Doctor of Medicine, together with all the rights and privileges thereunto belonging. In testimony whereof, we have granted this Diploma, signed with our hands, and sealed with the seal of our college." It is a sad reflection, that a man who has misspelled above ten per cent. of the words of this simple letter above quoted, holds a diploma, signed by the faculty and officers of a recognized medical college, as proof that "he has complied with its requirements and given ample evidence of his learning and skill." We have the authority of a member of our State Board of Health for saying, that there are on file in its office not less than two hundred instances of graduates in medicine who hold this dubious evidence of learning, who cannot spell diploma. We have been furnished from this source with seven different and incorrect ways of spelling this word of seven letters. They are as follows: diploma,

diplomy, diplomer, diplomah, diaplemy, diapluma, diploma. It seems a marvel that these ingenious orthographers have all agreed to commence the word with D. The sad comedy of this subject is worthy of the pencil of a Hogarth. Fancy the Alma Maters of these two hundred ignorant persons, solemnly conferring on each of them the Degree of Doctor of Medicine, in consideration of "his having complied with the requirements of our college, and given ample evidence of his learning and skill." But when we think of such a person at the bedside of the sick, clothed in professional authority, the scene suggests a delineator of tragedy rather than comedy. We have no direct means of testing the medical attainments of these two hundred graduates; but every one knows that it is impossible for such uninstructed minds to acquire in any degree the knowledge essential to a decent discharge of the duties of a practitioner of medicine. All will admit that the practice of conferring degrees on such illiterate persons by our institutions of learning should be stopped; but it is not quite clear what methods are best for accomplishing this result. The efforts of the State Board "to secure one common Examining Board on preliminary education for the six medical colleges of Chicago" is to be commended. The secretary of the Board has communicated with all the medical colleges of this city on the subject, and a number of them have given the proposition their approval, and expressed a willingness to co-operate in carrying the purpose into effect. The rule now adopted by our State Board, of not recognizing any college as in good standing that does not require of the student evidence of the possession of a fair degree of primary education before he is permitted to matriculate, if honestly complied with by the colleges, would keep all these persons who cannot spell diploma out of the profession, but to cover all contingencies, it would be safer for the sick to allow none to practice without a license, and to license none but graduates who had passed a satisfactory examination before a board constituted for the purpose, which board should be independent of the schools that confer the degree of Doctor of Medicine. Our Board of Health should freely exercise the right it has to refuse to recognize diplomas of schools of doubtful char-

acter, and to revoke the certificates of all practitioners who clearly convict themselves of being unworthy to retain them.

Our State Board of Health commends itself to the confidence of the public to the extent of the acquirements which it expects of non-graduates, who apply to it for a license to practice, as shown by the printed list of questions submitted for answer to the applicants who presented themselves for examination at its last meeting. The standard required was not too high, but if it is maintained it will drive applicants to the colleges for a degree, as an easier way of entering the profession than to go before the State Board for an examination. No license to practice was issued to non-graduates at this meeting, as none of the eighteen applicants could correctly answer eighty per cent. of the questions given. The public more than the profession are interested in a proper solution of these questions.

(Signed,)

E. INGALS, R. G. BOGUE, A. H. FOSTER,	}	<i>Committee.</i>
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After its reading, Dr. S. Strausser moved that the report of the committee be received and the gentlemen discharged; seconded by Dr. J. H. Etheridge, and the motion was carried.

Dr. R. E. Starkweather thought the information contained in the report should be more extensively promulgated, and moved that the secretary be authorized to have printed 500 copies, and distributed to the members and others in the profession. The motion was discussed at some length, but did not receive a second. Dr. Earle thought our salvation need not lie in the State Board of Health, especially regarding their views on spelling, old doctors—many of them—could not spell good, but were splendid practitioners.

Dr. J. A. Robison quoted the remarks he had heard at the recent meeting of the State Society, by a member there, who said, "Students that go into perceptor's offices should be better educated, and to get at the bottom of this important subject, perceptors should require of a student more thorough preliminary education before entering the study of medicine.

Dr. Ethridge argued at length upon the subject of Medical

Education, and a preliminary examination of students. He thought but very few doctors anywhere could answer 50 per cent. of the questions pertaining to the 998 medicines in the works on therapeutics.

Dr. Starkweather also spoke of the merits a student had to possess before he would be admitted in Cambridge college or the Oxford school, England; and then the Society adjourned for two weeks.

L. H. M.

P. S.—Since the paper in the first part of this report was read a woman on Emma street, in the north west portion of the City has given birth to three children. All were alive and are doing well, along with the mother.

L. H. M.

ARTICLE VIII.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society held a regular meeting July 2, 1883, with the President, Dr. D. W. Graham, in the chair. The minutes of the previous meeting were approved, as read by the Secretary.

Drs. E. J. Doering and Wm. J. Gates were elected to active membership.

After additional routine business had been transacted, Dr. Simon Strausser read a paper on "How Doctors and Medical Societies Should be Made More Efficient."

ABSTRACT OF THE PAPER.

The life of a physician is one of great care and responsibility, more thorns than flowers are strewn in the path of the arduous duties of his profession, and he loses at least one half of his earnings by being a poor financier, or through unscrupulous persons, or by his own charitable nature, or from an ever exacting public, who frequently fail to pay him for services rendered, and then add insult to injury by defaming the character and skill of their former attending physician.

The druggist frequently uses his power to injure the independent and honest practitioner—besides depriving the doctor of a fee by taking upon himself the duty of prescribing his own medicines, or unnecessary delay in preparing what was previously prescribed by a physician, which may cause great injury to a patient or jeopardize life. A satirical remark by an elderly physician is frequently made in public of a younger brother, especially if the younger Esculapius is poor in pocket, and has just entered upon his professional career.

These are a few of the difficulties to be overcome, that beset the practitioner in his pathway, and how can this be remedied? Can the combined influence of this honorable association do anything to bring about this desired change?

Again, it is humiliating to every honest, upright, and honorable physician, to see men in our profession using political tactics for office or position, or through chicanery be called before the courts in the capacity of an expert, instead of their merits or professional ability being known, and resulting in their being called to give expert testimony. This society has frequently been held up to the public gaze in scorn for the ignorance displayed by the so-called expert, thus throwing a cloud upon the fair name of our honorable calling.

We have in our midst men learned in the sciences, who are earnest and honest laborers for the advancement of professional learning, and are thoughtfully meditating how best to eradicate these evils.

Regarding our County Hospital management, it is to be regretted that it is done in the interest of political aggrandizement, the warden being appointed regardless of his fitness and ability, and this Society should use every honorable means to call public attention to this abuse. Many young lives might be saved if there were special wards provided in our hospitals for certain specific ailments.

Our united efforts should be exercised in sustaining the local and State Boards of Health, and abbatoirs and other dealers in cattle, poultry and milk should be watched with a jealous eye, thus lessening the cause of mortality. To be sure, a law exists

for the punishment of those adulterating food, but is it ever enforced?

It becomes our duty to urge upon the authorities the necessity of the faithful enforcement of this law. This Society should exert its influence with the public in the erection and maintenance of a hospital for children, and to correct that greatest of all evils existing in our large cities, that causes such frightful loss of life and untold misery and disease, viz. prostitution. The writer concluded by admonishing his brethren to be true to each other, moral and conscientious, and that we unite in the advocacy of a "State Board of Examiners," with a graded and thorough examination for the degree to which we aspire, and thus we will be more efficient, individually and collectively.

In the discussion, Dr. C. T. Fenn first remarked, by stating he scarcely knew which to consider in the paper, so he asked the author if the field gone over was not too extensive for the announcement, and that it was too sweeping in character; was the paper read to benefit the Society?

Dr. G. C. Paoli thought if a "Bismarck" was in this country, the writer's ideas might then be carried out. Regarding the County Hospital management, all we could do would be to agitate the question alluded to in the paper, and instruct the county commissioners as to their duties. He knew Dr. Strausser meant well by advocating what he did, but thought he was taking too dark a view of his subject.

Dr. Strausser answered both gentlemen who had preceded him, and said his object in reading the paper was to benefit the Chicago Medical Society and improve us. To do so, he thought the constitution and by-laws would require first to be changed. He had the good of the profession at heart and meant well, indeed, and offered a motion that a committee of five (5) be appointed by the chair to revise or amend the constitution and by-laws, and report at the first meeting of the Society in the fall.

The motion was seconded by Dr. A. R. Reynolds.

Chairman Graham retired temporarily, and called Dr. Paoli to the chair.

Dr. G., who was opposed to the motion, spoke in a pleasant and entertaining manner for some minutes. He did not think

we ought to revise the constitution and by-laws. He thought Dr. Strausser had a dark view of everything in the Society, the same as frequently occurred to young members.

The motion was then put and carried, resulting in the appointment of Dr. S. Strausser, Dr. G. C. Paoli, Dr. C. T. Fenn, Dr. C. W. Purdy, Dr. D. R. Brower.

Miscellaneous business—none.

Adjourned.

L. H. M.

ARTICLE IX.

CHICAGO PATHOLOGICAL SOCIETY.

Regular meeting, June 11, 1883.

The Society was called to order by the President, Dr. Angear.

The minutes were read and approved.

Drs. Isabell R. Copp and C. A. Sanders were elected to membership.

The following named gentlemen were proposed for membership: Drs. R. N. Hall, J. E. Harper and E. E. Holroyd, by Drs. Angear and Tebbets.

The Society then listened to the reading of a paper by Dr. E. P. Murdock, entitled, "The Immediate Operation for Repair of Lacerated Cervix."

The author stated that reproduction is a pathological process, although a proposition not in accordance with the views of the most eminent teachers of physiology; he would not limit the term pathology to conditions wholly unnatural, as death is a natural process, and all diseases are the result of natural causes, but to designate processes and conditions which sow the seeds of disease and death, or establish to train of symptoms which produce these causes of death.

The author then enumerated as pathological processes, the destruction of the hymen in coition, nausea of pregnancy, the disordered nutrition during gestation, the œdema of the limbs, the laceration of the cervix and perinæum, and the separation of the placenta from the uterine walls. In the vegetable kingdom, all annual plants die as a result of efforts at reproduction, and per-

ennial plants, long lived when sterile, become weak and succumb to the exhausting influence of reproduction.

In the animal kingdom, many varieties die soon after bringing forth offspring.

In women, quoting from Prof. Byford, the genital apparatus is in a constant state of predisposition to disease.

The author considered a pregnant woman as a patient to be kept under observation for a long time before and after delivery.

The text-books devote but little space to the immediate operation, but describe Emmet's operation at some length.

Dr. Pallen early called attention to the subject in 1866, by reports of cases, and again in 1874, also, Dr. Nelson, in 1877, had some successful cases.

Many cases pass unrecognized, owing to the soft condition of the parts, and the amount of blood covering them. To render diagnosis easier, one should note the nature of the hæmorrhage, which is arterial; sometimes a tear is detected as the head is passing through the os.

The reliable method adopted by careful examiners is to draw down the uterus with Vulsellum forceps, and expose to vision. The doctor then reported three cases as operated upon, two of which were highly successful, one being unsuccessful; and in conclusion, remarked that the injury could and should be recognized at the time of parturition, and that the importance of the operation cannot be overestimated, because—

1st. All operations for repair of injury should be done at the earliest possible moment, to secure repair by first intention, prevent deformity and prevent sepsis.

2d. The patient is saved all trouble and annoyance of preparatory treatment for a secondary operation.

3d. It gives the patient the best chance to escape septicæmia, subinvolution, and other complications which follow cervical laceration.

4th. It saves much time, great expense, and avoids deformity which would always remain unrepaired by plastic surgery.

The paper being before the society for discussion, Dr. Lyman expressed much interest in listening to its reading, but thought that experiment alone would decide the value of the

operation. He differed from the writer, in not considering pregnancy a pathological condition. Many women are ill at time of delivery, but the majority of cases present phenomena as natural as any in nature. If diseased, we should look for the cause, and consider it coincidental only; nausea, many hold, is only a normal condition of this state, protecting against miscarriage. In many cases, where an abnormal tendency to miscarriage existed, nausea should be induced, quoting Dr. Bedford. Artificial conditions produce accidental complications. Lacerations may often be left to nature. There is a remarkable tendency to recovery in lacerations of the perineum; one month after labor, on examination, one is astonished to note the great repair, without operative interference, although one had been tempted to operate.

Position and rest will go far toward promoting union. There are failures in many cases of operation. He considered the condition of patient at time of parturition very bad for operation, and that it was unwise, unless compelled, to add to the danger of septic poisoning. In rare cases only, after involution was completed, should the knife be used. Gentle topical treatment was preferable.

Dr. C. J. Lewis would not regard gestation as a pathological condition, but rather a hypertrophic one; he would not operate immediately after labor, for reason of adding surface to already large one for sepsis to occur. In wounds of the perineum would always apply deep, well adjusted sutures. The difficulty often found in obtaining consent of patient for a secondary operation would be an inducement to perform the immediate operation.

Dr. Bishop thought lacerations might be prevented by more careful finger dilatation.

Dr. Valin considered gestation a pathological process in the human female; in operation for laceration of the perineum had failed with silk sutures, but with the silver would be sanguine of success.

Dr. Lagorio had two cases of laceration of cervix after using forceps; thought many physicians are too prone to use forceps, doing much damage, and causing many lacerations; did not understand how union by first intention could occur on a surface in

a pathological condition. The operation was at all events a serious one—the patient being already fatigued.

Dr. Van Buren would demand facts to prove that gestation is a pathological condition in the majority of cases, though in the vegetable kingdom the fact might be true where the soil was sterile. He would hardly sit still and wait for nature to repair a laceration. There were some advantages in the immediate operation, *i. e.*, the relaxation of the uterus, allowing that organ to be drawn down and cleansed thoroughly; also in the conclusion of operation at one and same time with labor; its disadvantages seemed to be exhaustion and the lochia, unfavorable conditions to treat a wound; would be so considered in wounds elsewhere. Experiment was to be continued, and for this he waited.

Dr. Murdock, in closing the discussion, felt pleased with the thorough criticism of the members, but differed in a few points. Would not the torn surfaces be best protected from the lochia when well coapted? The careful operator will not operate on an exhausted woman. That the accoucheur of necessity has judgment, is pre-supposed. Probably not one case in twenty but what will bear the operation. Many are waiting for further light on the subject; from whence will it reach us, unless some one operates?

In every case of those now operating they report favorably, although many authorities are not now in favor of operation for repair of the perineum, while still favoring the operation upon the cervix.

So far as can be ascertained, success is the result in 65 per cent. of cases. Our main reason for operating is to prevent septicæmia. The operation originated in attempting to check arterial hæmorrhage.

Dr. Lyman moved that a vote of thanks of the society be tendered Dr. Murdock, and that an abstract of the paper be furnished for publication. Carried.

Dr. Angear, as chairman of the committee on rooms for the society, reported that the College of Physicians and Surgeons had offered accommodations, including cases in the college museum, for storage of pathological specimens, hence it seemed best to the committee to call the meeting at this place, to ascertain the

wishes of the society, and try the location, whether sufficiently central, etc.

Dr. Lyman moved that the society accept the offer of the college. Carried unanimously. Dr. Lyman also moved that the officers of the society interest the staff of the County Hospital in securing interesting specimens, reports of cases, etc. Carried. Dr. E. P. Murdock was unanimously elected curator of the society.

Among the members present were Drs. Angear, Bennett, Bishop, Bucher, Dobbin, Hanson, Lagorio, Lewis, Lyman, Leyon, Murdock, Newton, Patton, Sage, Tagert, Tebbetts, Valin ; also four visitors.

The society, on motion, adjourned.

J. H. TEBBETTS, *Secretary*.

ARTICLE X.

CHICAGO PATHOLOGICAL SOCIETY.

July 9. Regular meeting. The meeting was called to order by the President, Dr. Angear. The minutes were read and approved.

The following named gentlemen were elected to membership :

Drs. R. N. Hall, J. E. Harper, E. E. Holroyd and W. A. Synon.

In the unavoidable absence of Dr. E. P. Murdock, who was to have given the society a verbal report of an interesting case of infantile tetanus, Dr. Angear in a few words related what he knew of the case, having been called in consultation one hour before death occurred. The case occurred in a well-to-do family. A normal labor, without complications, was followed by no bad symptoms in the child till the sixth day, death supervening the evening of the seventh. The slightest current of air sufficed to throw the child into a most intense convulsion, extreme opisthotonos. The only lesion, of course, must have been the condition of the navel, and there was a peculiar redness around the umbilicus of an irregular shape.

The disease is coincident and probably excited by filth and foul air.

In London, over one hundred years ago, one out of six children died in the maternity hospitals within the first ten days with this peculiar disease.

About the same proportion of cases presented at Dublin at the same time. On sanitary improvements in these hospitals being introduced, the death rate fell from 2,000 to 500.

The Society then listened to the reading of a paper by Dr. Robinson, entitled "Myxœdema."

This rare and peculiar disease first began to be studied and differentiated in 1833 by Gall, but was then supposed to be a form of cretinism. In this country but five cases have been reported. Dr. Robinson then gave a detailed report of two interesting cases.

CASE I. Female, age 40; had several children; general health fair; face greatly and uniformly swollen with an eruption similar to that of arsenical poisoning; urine scanty, no albumen, no casts; speech slow, retarded; mental processes slow; no loss, but an impairment of coördination.

CASE II. Female, age 52, married; had several children, good general history; for eleven years has got easily frightened; mentally depressed by trifles, but not melancholic; rather lethargic, urticaria appears when stomach is disordered; throat dry, eyes swell, then face, then whole body simultaneously; perspiration absent, skin partially numb; taste impaired, also hearing and vision; menopause over; gait unsteady, but no ataxic symptoms; features have lost their play from the œdema, pupils normal; speech slow and hesitating; mental action slow; cheeks blush continually, eyelids pale and waxy.

The author then enumerated among the points of diagnosis that the cases reported have all been adult females; that the appearance of the face is like that in renal disease; the cheeks are usually flushed; the œdema is not that of dropsy—it appears simultaneously all over the body. The intellect becomes sluggish at an early stage; the voice monotonous; coördination tardy, but not lost.

Death occurs from coma uræmia, or inanition. The etiology is at present doubtful; perhaps a neurosis of the motor system,

together with disorder of the lymphatic system; according to some, an unrecognized albuminuria; or an accumulation of mucin in the connective tissue, deadening the action of the nerves.

Post-mortem changes do not reveal the cause of the disease. Degeneration of the anterior columns of the cord has been found. The arterial coats thickened; the stroma of the liver, spleen and kidney increased. The prognosis would be unfavorable. Renal affections are usually present in later stages. Little can be done way of treatment; he would advise milk diet, tonics and hygienic surroundings. Nitro-glycerine has been used to reduce capillary caliber.

Dr. Bennett remarked his interest in the reading of the paper, and inquired whether Bright's Disease could not co-exist, and was answered by Dr. Robinson that it could, and did, toward the close of life. The œdema does not pit on pressure nor extend by gravitation, as in Bright's disease.

Dr. Bennett then moved that the author be voted the thanks of the society and a copy of the papers furnished for publication. Carried.

Dr. Bennett then reported two interesting hospital cases, one of lumbago, severe, cured in two days by salicylate of soda, 30 gr. every two hours.

The second case, one of syphilis, which ran the whole course from initial lesion to secondary symptoms, iritis, meningitis, and death in six months.

Among the members present were Drs. Angear, Bennett, Brophy, Dobbin, Harper, Sanders, Robinson, Tebbetts, and several visitors. The society, on motion, adjourned.

J. H. TEBBETTS, *Secretary*.

A HOMŒOPATHIC physician at Vienna has left a large sum of money for the establishment of a homœopathic chair in the Vienna University, but the Austrian Government has declined to accept the money.

Original Translations.

ARTICLE XI.

D'ANTONA.—A CASE OF TOTAL PROLAPSE OF THE RECTUM TREATED BY A NEW OPERATIVE PROCESS.

The prolapse of the rectum was total in a woman seventy years old, was reduceable, but would come down again with an extrusion of 8 centm. The woman was tormented with an intestinal catarrh, and with ulcers here and there upon the mucous membrane, with grave protorrhagias and digestive disorders. Was impossible for her, the erect position; most painful, the walking and sitting.

D'Antona determined on operation, and after anæsthesia, fixed the tumor with four long Billroth's forceps to keep steady both cylinders of the prolapsus, one immovably against the other, and placed a catgut suture, "*a fil passante*," around all the prolapsed tube, $1\frac{1}{2}$ centm. distant from the anal margin. The sewing was double, making a first and a second turn of suture, "*a fil passante*," so that it resulted as if made in a shoemaker sewing manner, otherwise called "in a double row." The aim of this suture was the complete hæmostasia and the preventive reunion of the two ends of the intestine to be recised, in that manner occluding the space of Douglas and of the connective perirectals. Two pins were then fixed $\frac{1}{2}$ centm. anteriorly to the suture to well delimit the circle on which the chassaiqual ecraseur chain had to fall, which, when well tightened, permitted the withdrawal of the pins. When the recision of the prolapsed part was accomplished, the stump retracted powerfully inwards, and, notwithstanding every manœuvre, along with the traction on the four

ends of the catgut of the preventive suture, which hanged outside the anus, it became impossible to bring out the recised stump. Nor could it be done, as to dilate the stump with a large tent, which beforehand introduced in the rectum, ligated with a twine, was withdrawn. There was no loss of blood of any account, and another small cotton tent, soaked with a solution of perchloride of iron, was introduced. It clearly results that everything was foreseen in this operation, and every possible inconvenience avoided, for the preventive suture opposed the haemorrhage, the space of Douglas and the connective perirectal was occluded, and therefore the danger of an infection was avoided. The two stumps so remained tightly united and covered at their peritoneal superficies anteriorly, and on the connective behind. Blunted pins with smooth edges were used to prevent the haemorrhage, and were introduced with the guide of the finger as to not involve some intestinal ause, which possibly might have fallen with the prolapsed part. Having made the usual dressing, the patient rested quietly, had no fever, nor suppuration, nor any inconvenience, was perfectly cured at the 15th day.

LADY DOCTORS WANTED IN CHINA.—Miss Howard, an American M.D., has for some time practiced her profession in China, where she was fortunate enough to be called to attend the mother of a highly important official, Li Hung Chang, and subsequently the wife also of the same distinguished personage. Her fame as a physician has, it is said, spread over all North China, and Miss Howard is now besieged with applications to attend the wives and female relations of wealthy natives, who are entirely averse to consulting a foreign male physician.—*Louisville Med. News.*

THE Cincinnati Board of Health consists of one quack doctor and five saloon-keepers. The health officer is ex-several occupations, so far as we are able to learn, in none successful.—*Lancet and Clinic.*

Domestic Correspondence.

ARTICLE XII.

GALVA, ILL., June 28, 1888.

EDITORS CHICAGO MEDICAL JOURNAL AND EXAMINER.

Dear Sir:—Several years ago I saw a suggestion in one of the medical journals that a spray of dilute soctic acid would dissolve pseudo membrane of croup.

I concluded that if it would do so, it would also dissolve the membranous deposit of diphtheria. Since then I have used it in a number of cases with the happiest results. Where the patient is old enough to permit a thorough spraying of the throat I have not failed to remove the deposit with two or three applications, sometimes with one. May 4, 1888, 4 P.M., was called to see young Mr B., aged sixteen. Face flushed; pulse quick; temperature 102; throat very painful, and deglutition very difficult. Upon examining his throat, I discovered a gray, gelatinous membrane fully one-eighth of an inch thick, covering the entire tonsil, and extending over the soft palate of left side; right inflamed and swollen, but no deposits upon it. I sprayed the throat with the following solution. Acid soctic concreet, gtts xxx, aqua ℥i, and had the gratification of seeing the membrane entirely disappear. I put him on general treatment, stating that I would call in the morning. I then found the left tonsil and palate clear; but the right tonsil and palate had upon it a deposit fully as extensive as the left had upon it the night before. I again used the spray, and had the satisfaction of seeing the throat clear of deposit when I was through. I continued the general treatment, and left a solution acid soctic gtts x, aqua ℥i, to be used as a gargle. He

made a rapid recovery, and there was no more deposit of membrane. To those of your readers who have not used the acid in this way they will find it worthy of trial. I use a double-bulb rubber atomizer with rubber tip.

Yours very respectfully,

J. P. LYTLE, M.D.

ARTICLE XIII.

GARDNER, ILLINOIS, July 18, 1883.

EDITORS CHICAGO MEDICAL JOURNAL AND EXAMINER.

My Dear Sirs:—During the early part of last November a man came rushing into my office, nearly out of breath, telling me, "Come to my house as quick as possible, my boy is choking to death!" The place named was on'y three or four blocks away, and I lost no time in getting there; but death was there in advance. The mother and neighbors told me, "the child did not breathe after the father started." The boy was three years old, well developed, and was playing on the floor with other children, when, the play not going to suit, he began to cry, which brought on a paroxysm of coughing, then choking with results as stated.

The little fellow had had whooping-cough for some time, but was getting better. The history pointed to occlusion of the air passage as the cause of the sudden death, but as the child had nothing in its mouth at the time, I could not account for it, and was not a little exercised over the matter. The next day, having gained the consent of the parents, in the presence of the local fraternity, we made an examination, post-mortem, and found a chunk of fat pork in the trachea, immediately above the bifurcation. The mass completely filled the tube for the space of an inch and a half, and appeared as though it had been packed in there with considerable force.

The child died at five o'clock P. M. and had eaten nothing since dinner, about noon. The meat must have been swallowed at that time, and remained in the stomach until, during the fit

of coughing, it was forced up into the pharynx. The sucking inspiration, peculiar to pertussis, drew it down into the trachea, causing sudden death.

We occasionally hear of some one being "choked to death;" sometimes on meat, but after being safely landed in the stomach and remaining there for five hours, we would hardly look for it in the windpipe.

C. M. EASTON, M.D.

ARTICLE —.

QUINCY, ILLS., July 9, 1883.

DANIEL R. BROWER, M.D.

Dear Doctor:—Nearly a year ago I promised to write you an account of the results of the use of an anæsthetic mixture, used in a little operation for an exostosis upon the last phalanx of the great toe, where you kindly assisted me, you desiring to publish the account in the CHICAGO MEDICAL JOURNAL AND EXAMINER.

I should have written to you sooner, but wanted to report a sufficient number of administrations to give a reasonable idea of what might be expected from the use of the mixture.

I have now given it, or had it given fifty-seven times, with untoward results in but two cases, and in them every thing came out all right. Dr. C. B. Ellis, who has given it for me oftener than any one else, will explain why and how these symptoms appeared in his appended note.

Having lost a patient from the effects of chloroform several years since, I gave that up as an anæsthetic. Bromide of ethyl caused such intense redness of the face and such raving delirium that I gave that up. Ether was followed so often by vomiting, and the time for the full recovery of consciousness was so long that I was not satisfied with it. To obviate these defects, I believed a mixture might be made, that would unite the good qualities of chloroform with the safety of ether. I first made a mixture of chloroform one part, bromide ethyl one part, and alcohol four parts. This, I hoped, would act well, since chloroform made the patients taking it very pale, and the bromide of ethyl

made them very red. The alcohol was added as a diluent. In practice I found patients went under the influence in from one to four minutes, and came out in equally as short a time, but there was the deep flush and delirium, as when the bromide of ethyl alone was used.

The quantity of chloroform was increased until the mixture was: Bromide ethyl one part, chloroform three parts, alcohol four parts. When this mixture is administered the face retains its natural hue, the respirations and pulse are but slightly accelerated. There was but two of the fifty-seven patients who vomited; one of them, a very hysterical woman, very subject to vomiting, and the other had just eaten a hearty meal. I have given it nearly every time in a Dr. J. C. Hutchinson's (of Brooklyn) inhaler. Most of the patients did not require over two drachms to put them fully under its influence. Two ounces was as much as used in any operation, and that lasted for over an hour, and was an abdominal section for the removal of an extra-uterine foetus. The operations have been for amputations, tracheotomy, abdominal section, crushing a stone in the bladder, enucleation of the eye, castration and minor operations. The cases have been selected, not so much on account of the anæsthetic, but on account of the person that was to administer the anæsthetic. When I was afraid that the administrator would take more interest in the operation than the patient, I have kindly permitted him to use ether in preference to the mixture, which was on its trial. Hoping that others may test it and find it as efficient and safe as I have, I remain

Very truly yours,

WILLIAM A. BYRD.

ARTICLE XIV.

QUINCY, ILLS., July 9, 1883.

D. R. BROWER, M.D., Chicago.

Dear Doctor:—As I administered the anæsthetic mixture for Dr. W. A. Byrd in the two cases in which the "untoward results" supervened, I will explain how it came about. In both instances the operation was begun with a quantity of the mix-

ture which proved to be insufficient, and the attempt was made in the first case to keep up the anæsthetic influence with chloroform. As soon as the patient inhaled the chloroform, the pallor and interruption of the heart's action became suddenly so pronounced that the operation had to be continued without any further anæsthetic influence. This case was a castration on account of tubercular deposit, and the bad symptoms were not from shock, as the cord was not yet severed.

In the second case, which was an operation for a lacerated cervix, ether was used when the mixture gave out, and as soon as it was breathed carbonic narcosis was quickly observed and the inhaler was removed, and no further influence kept up.

In all other cases where I have administered the mixture, nothing unfavorable or unpleasant occurred, except the cases where vomiting occurred, as spoken of by Dr. B. The patients are readily brought under the influence of the mixture, and are as readily and pleasantly freed from it.

I would say that pure drugs have always been used in its preparation. Hoping that others may have as pleasant experience with the anæsthetic mixture, I am,

Yours respectfully, C. B. ELLIS.

IN reply to a letter from the editor of the *Medical News*, (Philadelphia), Dr. J. S. Billings, in charge of the library of the Surgeon-General's office, states that books are loaned from the library to other libraries which undertake to be responsible for them and have suitable buildings for their safe preservation.

Books which can readily be replaced, if lost, are also loaned to individuals upon their making a deposit with the librarian, of funds sufficient to make good any damage or loss.

Books must be sent by express, not by mail, and the cost of expressage paid by the borrower, the funds to be returned when the books are returned in good condition.

Reviews and Book Notices.

ARTICLE XV.—ON THE RELATIONS OF MICRO-ORGANISMS TO DISEASE. The Cartwright Lectures, 1883. By WILLIAM T. BELFIELD, M.D. Wm. Wood & Co. W. T. Keener.

As a topic for the Cartwright lectures, intended as they were to enlighten a large part of the profession on some recent advances, no more fitting theme could have been chosen than the one selected by Dr. Belfield.

There is no one question in the whole department of medicine of greater importance to all physicians, no matter what their practice, of more decided revolutionary influence upon our beliefs and notions than the one: how far does the germ theory extend?

Moreover, there is perhaps no subject as thoroughly misunderstood in this country as the topic of these lectures.

The manner in which Dr. Belfield solved the task imposed upon himself is highly creditable. After an introduction to his subject, he describes bacteria in general, and then fully explains how to search for them and cultivate them, exposing at the same time the errors into which different observers have fallen.

He then discusses the relation of bacteria to surgical infections, and the theory of antiseptic surgery.

The third lecture deals fully with tuberculosis, and the fourth with anthrax, protective vaccination in that disease, and further interesting generalities. Finally, an appendix sums up the diseases in which bacteria are found as constant elements, while another explains the technique for detecting them.

While these lectures can hardly introduce a student fully into our present knowledge of bacteria, they serve admirably to place

the topic in a lucid and comprehensive way before physicians partly acquainted with the details. When we reflect upon the amount of prejudice the germ theory encounters in this country, it seems proper, that the lecturer should have assumed a polemic, and even an aggressive tone. Although this style may not help to conciliate his opponents, it cannot be said that Dr. Belfield is unjust in his remarks. Sarcasm is one of the best weapons against ignorance, especially, when so well put as in these lectures.

A reviewer can of course find fault with any work. In this case it might be said, that some parts would have gained, especially the chapter on surgical infections, by a more systematic arrangement, with greater emphasis laid on the fact that the bacteria causing different diseases are different and distinct species.

Although this point is mentioned repeatedly, and indeed assumed throughout as an axiom, it is not insisted upon enough in the very places, where most confusion exists in the minds of the profession. For instance, it is yet urged against antiseptic surgery, even by a man like Lawson Tait, that bacteria are not known to cause putrefaction of the living tissues. This current misunderstanding shows, that even writers, who claim to be well informed, do not take into account sufficiently the difference in the action of different species of bacteria. Most pathogenic bacteria which can vegetate in the living tissues and injure them, do not cause putrefaction even in the dead soil, in which they may be cultivated. Again, the lecturer might have fortified his position better by referring more in detail to the recent positive demonstrations of the parasitic nature of erysipelas, gonorrhœa, trachoma, and suppurative inflammations in general.

Taking the book as a whole, however, it embodies so much of the recent research in this field, and presents it in such a fair critical light and such an attractive style, that it cannot be too strongly recommended to that large part of the profession who have not yet given the subject the proper recognition. H. G.

ARTICLE XVI.—DISEASES OF THE EAR IN CHILDREN. BY
VON TOPVALTSCH, Würzburg.

This volume of 165 pages forms a portion of Gerhardt's *Handbuch der Kinderkrankheiten*; it treats in a very clear and thorough manner of—

- I. Diseases of the External Ear.
- II. Diseases of the Middle Ear, Tympanum, Eustachian Tube, and Mastoid.
- III. Foreign bodies in the Ear.
- IV. Diseases of the Inner Ear or Labyrinth.
- V. Deaf Mutism.

E. P. D.

AMERICAN DERMATOLOGICAL ASSOCIATION.

The Seventh Annual Meeting will be held at the Sagamore House, Green Island, Lake George, on Wednesday, Thursday, and Friday, August 29, 30, and 31. Papers will be read by the following gentlemen:

Dr. Piffard, Treatment of Acne; Dr. Hyde, A Study of the Coincidence of Syphilitic and Non-Syphilitic Affections of the Skin; Dr. Graham, General Exfoliative Dermatitis; Dr. Stelwagon, Impetigo Contagiosa; Dr. Robinson, Alopecia Areata; Dr. Duhring, 1. On the Value of a Lotion of Sulphide of Zinc in the Treatment of Lupus Erythematosus. 2. Report of a Case of Ainhum with Microscopic Examination; Dr. Atkinson, A Case of Multiple Cachectic Ulceration; Dr. Sherwell, 1. Pseudo-Psoriasis of the Palm. 2. Malignant Papillary Dermatitis; Dr. Bulkley, 1. A Hitherto Undescribed Vegetable Parasite found on the Human Skin. 2. A Clinical and Experimental Study on Pruritus; Dr. Van Harlingen, Experiments in the Use of Naphthol.

ARTHUR VAN HARLINGEN, M.D., Secretary.

DR. S. J. JONES has been out of town for a month, visiting Saratoga and the White Mountains in the East. He was in attendance upon the Ophthalmological Society.

PUBLICATION office of the JOURNAL has been removed to northwest corner State and Madison. The library of the Association is still at 188 South Clark street.

DR. J. N. HYDE will return to the city about September 1.

Selections.

CONCEALED INSANITY.—AS ILLUSTRATED BY CASE OF MARK GRAY*. By D. R. BROWER, M.D., Chicago, Ills., Professor of Nervous and Mental Diseases at the Women's Medical College, and Lecturer on Practice of Medicine at Rush Medical College (Spring Course).

Insanity is no moral agent—the disordered nutrition of the brain upon which it depends, does not in any way improve the ethical tone of the unfortunate victim. If the patient was inclined to lie or steal or dissimulate before his insanity, he is none the less so inclined after. That insane patients should, therefore, deceive those around them, by concealing their insanity when occasion seems to require it, is not inconsistent with such insanity. That they do it, is within the experience of all who have had much personal contact with them. The motives which prompt the insane to action are not necessarily different from those which influence the sane. A desire to escape from the confinement of a hospital for the insane, or to avoid the ridicule of those around, or to maintain control of their affairs, is the usual incentive to this concealment. Those who are successful have delusions that are not necessarily manifest in their daily life and conduct.

Instances of concealed insanity are numerous. Ingels† reports a case in which a systematized delusional lunatic concealed his delusions so well, that he was about to be discharged when an accident which excited his emotional nature and caused him to give vent to his delusions. In a second case, a man who was guilty

* Read before the Chicago Medical Society, December 18, 1882.

† *Annales et Bulletin de la Société de Médecine de Gand*. August, 1868.

of very *bizarre* actions; was twice discharged, and twice recommitted in one asylum. On the third admission Dr. Ingles was able to determine, but only after a long conversation, that the patient's actions were from the first based on systematized delusions. But for an accidental emotional explosion, these delusions would not have been elicited. In a third case, a systematized delusional lunatic had delusions of persecution, but for several years had so conducted his business as to lead every one to regard him as of perfect mental integrity. To his mother he communicated his delusive ideas, and she accepted them as true, but ascribed his persecution to sorcery.

Meyer* reports a case in which a man was able to conceal his insanity from his friends, and this insanity was only detected on the explosion of a wild business scheme based on it. Spitzka† cites a case, in which a systematized delusional lunatic was so well able to conceal his insanity, that he was appointed guardian over his insane sister. Blanche‡ reports several cases, in which patients concealed their insanity to avoid being douched and subjected to restraint by Leuret, who attempted to treat insanity by intimidation.

Munro§ had a curious experience of this kind. A patient brought action against him for false imprisonment, and underwent a severe cross-examination without revealing any delusion. It was suggested to the judge (Mansfield) to ask him what had become of the princess with whom he corresponded in cherry juice, and immediately a group of delusions became manifest. The patient indicted Dr. Munro a second time, but could not be led to say a single word on the subject which had led to the failure of his first indictment. Blanchford|| says, that patients may deny their delusions for the purpose of regaining liberty. Forbes Winslow¶ states, that Lord Ellenborough expressed in the course of a judicial enquiry his opinion, that a patient had perfectly recovered. The patient was detected speaking in Latin in order to conceal his delusion. Bucknell and Tuke** cite a

* *Allgemeine Zeitschrift fuer Psychiatrie*. Band xxiii.

† *American Journal of Neurology and Psychiatry*. August, 1892.

‡ *Del état actuel des aliénés traité par Leuret*.

§ Cited by Bucknell and Tuke, *Psychological Medicine*, p. 477.

|| *Insanity and its Treatment*, page 361.

¶ *Obscure Diseases of the Brain and Mind*.

** *Op cit.*

case in which a patient was able to conceal his delusion in conversation, but revealed it in his correspondence. Hammond* states, that the insane may conceal their delusions for a purpose.

†Haslam states concerning the insane that "they have sometimes such a high degree of control over their minds, that when they have any particular purpose to carry they will affect to renounce their opinions which shall have been judged inconsistent, and it is well known they have often dissembled their resentment until a favorable opportunity has occurred of gratifying their revenge. Of this restraint, which madmen have sometimes the power of imposing on their opinions, the remark has been so frequent, that those who are immediately about their persons have termed it in their rude phrase, stifling their disorder." ‡Esquirol‡ makes very similar statements. On the other hand, Dr. A. E. Macdonald § states, that men really insane do not recognize their insanity, and hence do not conceal it. He is, however, the only physician who has had that experience.

Chicago has had recently two striking illustrations of the same kind in the case of Adelaide Roberts, who shot Theo. Weber; she was declared to be insane, was sent to Elgin Hospital, and about two years thereafter released by Judge Rogers under an *habeas corpus* proceeding, and in the case of Mark Gray, the would-be assassin of Edwin Booth, who was declared to be insane, and about two years after was released by Judge Williams, of Quincy, under a similar proceeding.

These learned judges by a stroke of the pen cured these two cases of insanity, after the accomplished superintendent of the Elgin Hospital for the Insane had expended his resources in that direction for two years in vain. Such presumption is marvelous. Had I taken before either of these judges a case of phthisis, and asked him to relieve the patient by the same process, it would have created a doubt, as to my mental soundness, yet insanity is not less a disease than phthisis. The judges would soon recog-

* Treatise on Insanity.

† Observation on Madness, p. 53.

‡ Maladies Mentales.

§ American Journal of Neurology and Psychiatry. Volume I, p. 120.

nize in a most decided manner the exclusive medical relations of insanity should one of their own family become insane. The judgment of Dr. Kilbourne would then be accepted without question. Neither of them would under such circumstances think for one moment, of calling even upon the most exalted judicial officer for assistance or relief. The case of Adelaide Roberts may on some future occasion be made the basis of some reflections on the medico-legal relations of hysteria and hystero-epilepsy.

At present I ask attention to the case of Mark Gray: May 10, 1879, at an inquest and judgment of the Criminal Court of Cook County, Illinois, Mark Gray was adjudged insane, and committed to the Elgin Hospital for the Insane, into the charge of the superintendent, who was commanded to take the body of the said Mark Gray, and keep it in safety in said asylum until he should have fully and permanently recovered from such insanity. The offense which resulted in this judgment, was an attempt to shoot Edwin Booth, the distinguished tragedian, in McVicker's Theater, Chicago. Mark Gray fired two shots from the dress-circle, and was in the act of firing a third, when he was seized and immediately placed in the custody of the police.

For a day or two after the event he was morose and reticent. He would answer questions, if at all, only in monosyllables. Afterward he became more communicative, and boasted of his wonderful histrionic talent, especially his proficiency in Hamlet, of which he claimed to know every line, and of his ability to render it in a manner much superior to Edwin Booth. His great extravagance in this direction, his excitability, his reticence about the tragedy, the seeming lack of motive for the crime, the fact that Booth had never seen him, led to doubt as to his mental soundness. After a day or two he manifested the delusion which impelled him to the crime. This was the belief that he was the son of Edwin Booth, and as such, had by heredity his wonderful histrionic talent. Edwin Booth had abandoned him in his childhood, had deprived him of a suitable education for the development of these talents, had neglected his mother, and in revenge for this, Gray shot at him twice, and would have continued firing had he not been arrested. It was at first the opinion of some

that there might be a foundation for this belief, notwithstanding its denial by Edwin Booth. Those who entertained this opinion abandoned it when Mrs. Gray made her appearance, a glimpse of her was sufficient to satisfy the most skeptical, more especially as Gray was found to be twenty-eight years old, and it was shown that Mr. Booth had been absent traveling in Australia and elsewhere abroad for two years prior to Gray's birth.

On examination of Gray, three days after the shooting, I found him to be tall and slender, with small muscular development. His face was asymmetrical, the muscles of left side differently innervated from those of the right, so that a smile caused quite a marked distortion of the face. There was twitching of the muscles of the right side of the face. The muscles of the right arm and leg were more active than those of the left. He dragged his left foot in walking and kept the right in more or less activity when talking. His pulse was one hundred and ten and feeble. He complained of headache which had continued for months, and of sleeplessness. His tongue was covered with a heavy white fur and was tremulous.

It was established at the trial in the Criminal Court, that Mark Gray's father died of ascites, four months after Mark's conception, which ascites was probably the result of hepatic cirrhosis, seemingly a consequence of spirit drinking. This is an interesting and important fact in the record. His father was laboring under an incurable disease of nutrition at the time of his conception. The other children of the family have shown none of Mark's peculiarities. It illustrates the important bearing of the condition of the parents at the time of the conception upon the health and welfare of the offspring. I recall a case in which the father had been unfortunate in business, left the city, drank heavily, returned home after some days, not yet over his spree, a child was conceived, and it is to-day the inmate of an hospital for the insane, incurably insane. There are four other children in the family, three older and one younger than this patient; all men and women of robust mental and physical health. The spree above mentioned is the only one in which the father ever indulged.

The broken down health of Mark Gray's father at the time of

his conception, laid the foundation of a weak nervous organization, which was the first step in the origin of Mark's insanity. Another interesting feature of the case is that Mark's age at the time of the full development of the insanity was about the same as the age of his father, at the time of his death. The disturbance of nutrition, which by attacking abdominal organs gave rise to dropsy in the father, by attacking the brain gave rise to insanity in the son, and this transfer of morbid action from one organ in the parent to another in the progeny is a fact of common observation. Had the same organs been the seat of disease in the son as in the father, the criminal trial never would have taken place, and the stupidity of the Quincy judge would not have manifested itself in this direction.

Mark Gray grew up possessed of inordinate conceit and exalted self feeling and having ideas of grandeur and importance. In early life he became intemperate, a part of the time he drank heavily. In 1876 he stopped drinking excessively, and began to act strangely about his home. He would get up at night and declaim Shakespeare the night through, He would keep himself away from the other members of the family, and would sit for hours with his head between his hands. At other times he would strike "stage attitudes" and remain for a long time in these. So peculiar was his conduct, that his mother and sister were much alarmed about him. It was at this time that he conceived the delusion of his relationship to Edwin Booth. He told me that he heard it frequently whispered as he passed along the street, "there goes the bastard son of Booth." His fellow-clerks in the store tormented him by the same sort of whispering. These were evidently auditory hallucinations.

After a time he determined to have an interview with Mr. Booth, and demand a monetary compensation for the years of imaginary neglect which he had sustained. For this purpose he came to Chicago, April 22, 1879, and went immediately to the theatre to see Mr. Booth, but did not find him there. He went to the theatre again that night. Mr. Booth was playing *Riche-lieu*. During this play Gray imagined that Mr. Booth saw him sitting in the gallery and recognized him; made faces at him, called him by name several times, "Mark! Mark!" and made

fun of his mother. Gray left the theatre with the resolution to kill Booth, for these insults, the next night. He purchased a pistol the following day, and afterwards secured the seat which he thought would serve his purpose best, in the dress-circle near the stage, and by a study of the play, selected the prison scene as a favorable time for firing the shots. He was arrested, tried, and found to be insane as already stated.

At the Elgin Hospital for the Insane, his delusion of his relationship to Booth, his delusion of his wonderful histrionic talent, and his constant reading and declaiming Shakespeare were manifest. December 15, 1879, he importuned Dr. Kilbourne for his discharge, as he had often done before. Dr. Kilbourne told him that he was still insane and, as a proof of it, stated that his (Gray's) delusion of being Edwin Booth's son was just as fixed as the day he entered the hospital. The day after this the hospital record shows that Gray gave up reading and declaiming Shakespeare, and when spoken to about being the son of Booth, would say that he had given up all idea of such a relationship, that it was a crazy notion of which he had rid himself. He continued then to assert on all occasions, that his delusions had been corrected, and he manifested no interest in Shakespeare or theatrical matters, until December 1, 1880.

During this interval of nearly one year, the Board of Trustees had Mark before them three or four times, carefully examined into his mental state, and thought he might be discharged, but Dr. Kilbourne, not being quite satisfied, asked them to wait a short time longer. December 1, 1880, Gray broke out afresh, and the hospital notes show "that he refuses to have his hair cut, likes to wear it long, as it looks more stage-like, practises elocution every day in his room, considers himself a great Shakesperian scholar, has talent for the stage much superior to that of his father Booth." He continued thus to manifest his delusions, every day. Thus, on October 18, 1881, in conversation with Dr. Crane, assistant physician of the Hospital, Gray said that Mark Lyon (Gray's father) was Edwin Booth; that his father's brother, Pat Lyon, was Junius Brutus Booth, Jr.; another brother of his father was John Wilkes Booth, and still another, Bryan Lyon, was Joseph Murphy the comedian, whom he believes is a brother

of the Booth's. He does not believe that Wilkes Booth is dead. He believes his cousin Mary Lyon, is a daughter of Junius Brutus Booth.

February 5, 1882, he had an interview with the Board of Trustees seeking a release from the hospital. In that interview he was again told that so long as he had the delusions concerning Booth and the stage, he could not be discharged. During this interview he was much excited, violent at times, and incoherent in language. He left the room evidently resolved on concealment again, for he ceased from that time to manifest any interest in theatrical matters, and laughed at his delusion concerning Booth, so that his attendant, who was employed shortly after this event, and who was quite constantly with him for about eight months, saw at no time any evidence of mental disturbances, but noticed Gray avoided with much effort and with a surprising degree of indifference any reference to theatrical matters.

The *habeas corpus* trial occurred in Quincy. Why in Quincy, two hundred miles from the place of the criminal trial, is a mystery! The trial was conducted as such trials usually are. A dozen people were called by Mark's attorney. Some had known him before; then talked to him for a few minutes about the weather, business, politics, theatres, etc., and all with one accord testified, that they had found no evidence of insanity about him. This purely negative evidence would release from custody nine-tenths of the patients of any hospital for the insane. Four persons who were announced as physicians were called by Gray's attorney. One, a veterinary surgeon, who felt quite confident of Gray's complete restoration. One, a retired clergyman, who had attended one course of lectures in a medical school, who, to his credit be it said, testified that if the patient had deceived the hospital authorities as to his insanity for one year, it is quite probable that he might be doing it now, and he would hesitate therefore in aiding Gray's discharge. One was a young M.D., son of the retired clergyman. before mentioned, fresh from a medical college, who will probably be wiser when he is older, and the fourth was a physician of fine attainments, with that familiarity with insanity which the country practitioner has. He testified that while he saw no evidence of insanity in Gray, yet he would

not advise his discharge against the judgment of Dr. Kilbourne. In addition, an attendant who came to the hospital about one month after Mark began to conceal his delusions, the last time, testified, that he had daily intercourse with him and had observed no evidence of insanity, but was surprised at the pertinacity with which he avoided all conversation upon theatrical matters, the attendant being much interested in such things.

Mark testified in his own behalf, and his testimony was a surprise to the newspaper reporters and the people about the court room. The average individual looks upon insanity as a complete loss of reasoning powers, as something which must be violent and striking in its demonstrations. I have repeatedly taken visitors through the Insane Hospital of which I was the superintendent, and when every ward had been visited have them ask me to show them the lunatics. To one familiar with insanity, and the history of this case, Mark's own testimony was sufficient to show that the disease was not eradicated. He indulged in that denunciation of the Hospital authorities, which is usual in such cases. He pronounced judgment on the assistant physician, Dr. Crane, now in private practice in New York, to the effect that *he* was crazy, "crazier than witness was." Dr. Kilbourne, one of the most successful superintendents in the West, a thoroughly scientific physician, was to him vile and despicable. He accused Dr. Kilbourne of taunting him with the story of his birth; of abusing him so maliciously and acting in his visits to him so like a crazy man, that after he went out the attendant told him he ought to have knocked Dr. Kilbourne down. I have often, as has every superintendent of an insane hospital, heard precisely such abuse from this class of patients. It is a remarkable fact, that patients who leave the hospital cured, always have pleasant recollections of those who cared for them in their affliction. This unwarranted abuse of Drs. Kilbourne and Crane would be sufficient to establish Gray's insanity were there no other evidences of it. Gray told the story of his life and of the great tragedy he tried to enact, with a smile on his lips and with many efforts at jocularitv; when these jokes provoked laughter in the hangers-on of the court, Gray seemed particularly happy. He told with evident delight of the way he had fooled all the asylum au-

thorities for one year ; that Dr. Kilbourne had told him he could not be discharged until he had given up his delusions ; that he then resolved to conceal them ; that he was successful in deceiving his ward attendant, Dr. Crane, and the Board of Trustees, and after playing the game, as he expressed it, for a year, he gave it up. The learned judge, at this part of Mark's testimony, asked him : " If you admit that you did practice this deception for one year, how shall I know that you are not doing it now ? " Mark, after a long hesitation, answered : " I don't know," and in a very tragic attitude, rising from his chair, appealed to God to witness that he was not fooling now. On behalf of the hospital, Mr. J. S. Miller, the attorney, first presented the record of Mark's hospital life ; an abstract taken from the daily reports of his various attendants, showing the presence of his delusions ; the concealment of them for one year ; the subsequent reappearance of them in the same form, and the concealment beginning in February, 1882. Dr. Kilbourne testified to the same effect, and stated in strong and positive language his belief that Mark Gray was still insane. Dr. W. A. Byrd, one of the leading surgeons of Quincy, after hearing all the testimony, and after a careful personal study of Gray, testified that he was then insane. Dr. Byrd dwelt upon the evidence of neurosis, as shown in asymmetry of the face, in unequal action of the muscles of the two sides, in the twitching of the facial muscles, and those of the shoulder and hand.

My testimony, and that of Mr. Rice, a deputy sheriff of Cook Co., who had taken Mark to the hospital, and had frequently seen him there and knew of his concealed delusion, was to the same effect. Judge Williams then rendered his opinion, releasing Gray from restraint.

Of course there could be no doubt that the relator was insane, if there had been any doubt, his subsequent history placed it beyond question. He wrote a letter four weeks ago to Mr. John W. Norton, of the Grand Opera House, St. Louis, in which he proposed to star Hamlet in small towns ; still later to the Keokuk correspondent of the *Chicago Tribune* he said : " It is my intention to make arrangements to star with a company on the road. The notoriety I have achieved during the last few years

and my great resemblance to Booth would draw crowded houses. I resemble Mr. Booth in every particular except the eyes; his are deeply sympathetic, mine the most brilliant. Of course my going on the stage will hurt Booth," and much more talk of the same character. The resemblance to Mr. Booth is an insane fancy.

This case suggests the necessity of taking this matter of discharging criminal lunatics out of the power of the judiciary. It should be placed in the hands of those who have given some personal attention and study to insanity; those who recognize the fact that insanity can be concealed, and the further important fact that the homicidal impulse may lie dormant for years, and then manifest itself in its former fury. Hadfield, whose case is quoted in every book on medical jurisprudence, who was released by the eloquence of Erskine, from the responsibility for his act of firing at George III., in Drury Lane Theatre, remained in the Bethlehem Hospital for the Insane for years before he showed any other homicidal impulse, and then he made a murderous assault upon a keeper for whom he had always manifested the greatest regard. In Illinois, this important matter could with safety be confided to the State Board of Public Charities.

[NOTE.—I am very much indebted to Dr. Jas. G. Kiernan for citations of authorities found in this paper.]—*Alienist and Neurologist*.

ON THE TREATMENT OF NEURALGIA. A Clinical Lecture by
PROF. DUJARDIN-BEAUMETZ, Member of the Academy of Medicine, Physician to the Hopital St. Antoine, etc., Paris, France.

In speaking of the etiology and treatment of neuralgia, Prof. Dujardin-Beaumetz speaks of this disease as being the result of modifications affecting the integrity of the nervous system, central or peripheral, or of the blood, or finally of the circulation. Here, then, are three classes of causes which we must pass in review.

From the standpoint of the nervous system, leaving one side alterations, more or less profound, and compressions of the nerves, I desire to call your attention to two points: first, the predisposition to neuralgias in the neuropathic and hysterical; second, to inflammation of the nerve-tubes or neuritis.

Neuralgia is one of the manifestations of the nervous temperament, and it may be affirmed that every nervous person suffers more or less from it. In these cases we witness the triumph of the bromides and of hydrotherapy. Bromide of potassium (alone or associated with other bromides), cold douches, local or general, and suitable out-door exercise are the most certain methods of cure of neuralgias due to neuropathy; electricity, and especially static electricity, is a useful adjunct.

Neuritis is one of the causes of obstinate neuralgias; it entails atrophy of the member, and trophic cutaneous disturbances. The most effective remedy for neuritis is revulsion, which has a favorable influence on both pain and inflammation. Here all the revulsive methods before alluded to are applicable, and especially active cauterizations. To counteract the trophic troubles, you should have recourse to galvanism.

Neuralgias due to circulatory modifications are of two kinds—congestive and anæmic. Congestive neuralgias are especially frequent in the arthritic, and are best treated by ergot and aconitia. It is especially in facial neuralgias of plethoric persons, with marked congestion of the face, that aconitia is effective, and this by a sort of double influence on the circulation and on sensory innervation. Marino* has recently proposed ergotine for these congestive neuralgias, basing his recommendation on the known effects of this drug in constricting the minute vessels and anæmiating the tissues. I have never used this drug in neuralgia, having almost always found in aconitia a heroic and certain remedy. In neuralgias from cerebral anæmia, morphia is *par excellence* the medicament. It removes pain and provokes a salutary congestion of the sensory nerve-centers, which directly antagonizes the cause of the pain. Gymnastic exercises and hydrotherapy are most excellent adjuvants in these cases.

* Marino, *Ergotina per l'uso Epidermico, nelle cure delle Neuralgia*, Palermo, 1877.

As for the alterations of the blood, which are the point of departure of dyscrasic neuralgias, they are very numerous. and chlorosis deserves the first mention. It may be affirmed that every chlorotic girl is neuralgic, and here we have an illustration of that grand principle of Hippocrates, *sanguis moderator nervorum*. Therefore, every therapeutic means which shall augment the richness of the blood, and the proportion of its hæmoglobin, is applicable to these cases; ferruginous or arsenical medication, baths of compressed air, inhalations of oxygen, country air and exercise, hydrotherapy, gymnastics, nourishing food, all these remedial measures are indicated. I cannot too strongly urge the use of arsenic in these cases of chlorosis; in my experience, the arsenical treatment has been quite as successful as the ferruginous, if not even more so; for arsenic acts, not only as a reconstituent, but it is a direct modifier of nerve substance. Those who have had the most practical acquaintance with the use of arsenic in neuralgia are the most emphatic in its praise.

This medicament may be given in the form of Fowler's solution; dose, three to ten drops after meals. [Anstie prefers this form of administration; he finds arsenic especially useful in neuroses of the parvagus.] It is also given in granules and in pill form. [The combination with quinine, ext. aconite, and strychnine of Dr. Gross, known as Gross's neuralgic pill, is a favorite one in the United States.]*

Certain neuralgias are of malarial origin; here we witness the triumph of sulphate of quinine. Marrotte has given us a good description of these febrile neuralgias, due to marsh poison. Where there is any reason to suspect any pathogenetic influence of this kind, you should be particular to ascertain whether the neuralgic attack comes on at a fixed hour, in which event you can easily and speedily control the affection by a full dose of quinine. You can increase the effect of the quinine by combining it with aconite, giving every three hours a capsule or wafer containing one-quarter of a milligramme of crystallized nitrate of aconitia, and twenty-five centigrammes of quinine; four of these may be given each day.

*Vide Cohen on "Arsenical Treatment of Neuralgia" in *Journ. Med. de Bruxelles*, 1864. Barilla, in do., for 1863. Vanlair, *The Neuralgias, their Forms and Treatment*, etc., 1882.

The diatheses, and in particular, syphilis, arthritism, dartre, have often a marked etiological relation to neuralgia. As for the first, you must not confound the so-called "osteoscopic pains" with the neuralgic pains, which really often exist under the influence of syphilis. These cases demand the ordinary anti-syphilitic treatment.

As for neuralgias of arthritic origin, they are among the most frequent, and sciatica and gout are often one and the same thing. The means which succeed the best in the treatment of gouty and rheumatic neuralgias are baths, and in particular, sulphur baths and vapor baths; the latter are often medicated to advantage with turpentine or pine shavings. In rheumatic neuralgias, the thermal waters are often successful; those of Plombières, Bourbonne, and especially Aix-les-Bains. In these neuralgias we may employ cyanide of zinc, proposed by Luton, and especially salicylate of sodium.

The dartrous neuralgias are readily amenable to the arsenical treatment.*

Such is a somewhat curt summary of the principal indications of the pathogenetic treatment of neuralgia. I must now briefly consider the therapeutics of certain forms of neuralgia, and for convenience of arrangement will begin with the foot and end with the head.

Plantar neuralgia is one of the most painful of neuralgias, and incapacitates the suffer from walking or standing. It is especially gouty and rheumatic patients that are affected in this way. This neuralgia is often rebellious, lasting months, and even years. You have seen a good example in our wards; I allude to a certain female who, in consequence of rheumatism following an accouchement, has been for six months confined to her bed from plantar neuralgia. What has seemed to succeed best in her case has been the application of strong tincture of iodine, and hot sulphur foot-baths.

I shall not dwell long on sciatic neuralgia, which has been

* Marrotte. "Febri-neuralgies de l'œsthime du Gosier," *Bull. Gen. de Therap.*, 1874. Abbot "Sciatic and Facial Neuralgia Treated by Salicylic Acid and Salicylate of Sodium," *Boston Med and Surg. Journ.*, July, 1879. E. Labbé, "Neuralgies traitées par le Salicylate de Soude," *Soc. de Therap.*, Paris, Feb. 9, 1881. Lagrelette, "De la Sciatique," *Th. de Paris*, 1869. This writer advocates strongly vapor baths and hydrotherapy in sciatica.

often taken as the type of neuralgia. Here the revulsive medication, carried out in all its rigor, succeeds best. Sciatica is often a neuritis, and it may almost with certainty be affirmed, when this neuralgia is obstinate, and is not due to compression of blood-vessels, viscera, etc., that it proceeds from inflammation of the nerve. I believe that this frequency of neuritis of the sciatic nerve results from proximity of that nerve to the surface, and from the modifications which it is likely to experience from external influences, and especially from atmospheric changes; there is certainly no form of rheumatic neuralgia so common.

Apropos of these stubborn sciatic neuralgias, I must remark that they are often dependent on affections of the spine, especially when they are bilateral. Essential double sciaticas are very rare, and when they occur are generally occasioned by *tabes dorsalis*, or, as Worms has shown, by diabetes.*

Neuralgia of the uterus, bladder, testicle, and spermatic cord have frequently been observed. I know that it has been disputed whether these *visceralgias* ought to be considered true neuralgias, but it is of little consequence what we call them, they are painful affections, and prompt relief is demanded. In uterine neuralgia, cauterizations are of striking utility. You will, in fact, observe a certain number of females, who, apart from all organic disease of the uterus, suffer pains in that organ presenting all the distinctive characters of neuralgia. In these cases revulsive applications to the os or cervix with the Paquelin cautery, or the acid nitrate of mercury, give excellent results. Do not, however, forget that in this neuralgia of the organs contained in the pelvis, one of the best methods of administering anodynes is the suppository. [Here the morphia suppository of the U. S. P., with one-third grain extract of belladonna, will do good service.]

Ileo-lumbar neuralgia is often the cause of cruel suffering, besides being rebellious to the most energetic treatment. In fact, this affection is frequently due to profound troubles of the kidney, and particularly to renal lithiasis. You are aware that in these renal cases of persistent neuralgia it has been proposed to remove, or to open, the kidney; in a word, to perform nephrectomy or nephrotomy, as Professors Leon Le Fort and Le

* Worms, *Symmetrical Sciaticas in Diabetes*, Paris, 1880.

Dentu have done. I pass by gastralgia, hepatalgia, and the greater part of abdominal neuralgias, only referring you to what I have already said in regard to them while treating of diseases of the stomach, liver, and intestines, and I come now to intercostal neuralgia. This is a very common neuralgia, and all delicate, nervous women suffer from it more or less. Peter, in his remarkable lessons on *pains in the side*, insists that intercostal neuralgia is always limited to the left side; I do not quite agree with him in this. It is true that the far greater part of painful intercostal affections are on the left side. You will nevertheless now and then see hysterical patients whose painful sensations and whose anæsthesia are exclusively right-sided. On whichever side it may occur, this neuralgia is obstinate, and resists not only morphine injections, but also revulsive treatment. Hydrotherapy, applied in the form of douches to the painful region, seems to me one of the best means of combating this rebellious intercostal neuralgia.

I shall finish this lecture by a brief consideration of the neuralgias of the fifth nerve.

Odontalgia, I need not tell you, is one of the most common of painful affections, and every one has at some time experienced the atrocious pain of toothache. This neuralgia is often determined by alveo-periostitis, or by a carious tooth, which affects the terminal portion of the dental nerve. There exists a ready means of relief for this pain in arsenious acid, which destroys the dental pulp, a method which Tomes, Magitot, and Combe have advised. A paste is recommended (to be applied on cotton to the cavity of the tooth), consisting of two parts of white arsenic, two of morphia, one of gum tragacanth, and one of glycerine. Among the numerous measures which have been employed against odontalgia, Bouchaud has counselled electricity. His method is to place the positive pole over the diseased nerve, and the negative pole a short distance from it, and to pass a mild continued current.

A word now about facial neuralgia, properly so called. These neuralgias affect sometimes the supra-orbital nerve, sometimes the infra-orbital branches; these last are the most obstinate. As I have already told you, they often yield readily to treatment by

aconitina, or to sulphate of quinine when of an intermittent character. They sometimes defy all treatment, and have been known to involve the facial nerve, as well as the fifth. Without discussing the question of recurrent neuralgia—a subject which has of late been treated in a brilliant manner by Cartaz—you all know that neuralgia is often accompanied by painful contractions, and that to this syndrome the name has been applied of epileptiform neuralgia, or tic douloureux of the face. It is the most atrociously painful affection that has ever afflicted humanity, and instances have been known where it has driven its unhappy victim to suicide.

It is in these cases that surgery steps in, with its nerve-stretching and neurectomy; here, too, the advantages of galvanism have been lauded. If you employ electricity you must never exceed a certain intensity (two or three milliampères, for instance); you must also, as Apostoli enjoins, make use of rheostats, and interpose a certain resistance to the current, to avoid the *photopsias* which are produced with each modification of the current. It is understood that the positive pole must be placed over the painful point, and as for the duration of the *séance*, it ought to be continued till the pain disappears.

I must, before finishing, say something about migraine, which (therapeutically, at least) belongs to the neuralgias. You are not ignorant of the discussions which have arisen over the pathogeny of migraine, some considering it simply a neuralgia of the tri-facial, others as a special neurosis of the same nerve, or even as a neuralgia of the brain itself, a cerebralgia, as Romberg maintains. There are still others who assert, as does Du Bois-Reymond, that the principal seat of migraine is the cervical portion of the great sympathetic. This is the view generally held in France, especially by Gubler and Jaccoud. It is, in fact, probable that migraine is not a simple neuralgia, but a complex neurosis, affecting alike the cerebrum, the trigeminal nerve, and the cervical portion of the sympathetic.*

Whatever its pathological nature, migraine is a very distress-

* Tinsot, *Nerves and their Diseases*, t. xi, Paris, 1873. Boullaud, *Nosographie Médicale*. Pelletan, *Coup. d'œil sur la Migraine et sur ses divers traitements*. Du Bois-Reymond, *Archiv. fur Anat.*, 4th livraison, 1880, p. 461. Gubler, *Dict. des Sc. Med.*, Art "Migraine." Florry, *Mémoire sur la Migraine, Traité, Méd. Pratique*, t. viii. p. 73.

ing affection, and you will often be consulted in reference to it. You ought always, if possible, to ascertain the first cause, and as far as this is concerned, this is what you will discover: in nine cases out of ten migraine is a diathetic affection, and for my part I have frequently observed it in hæmorrhoidal, arthritic, and asthmatic subjects. Your treatment then should be directed to the arthritic diathesis, of which the migraine is an expression. At other times you will find the migraine due to causes of a different character, occasional causes to which you should address your therapeutic endeavors. These causes may be ranged in three groups; first, excess of work, and especially brain work during the night-time, and with the aid of too strong a light. Piorry referred all migraines to fatigue of the the eyes; to him migraine was only a manifestation of irisaigia. Second, anæmia; the megrim of chlorotics is an example, coming on whenever by any cause the organism is enfeebled. Third, congestive head-troubles, instances of which we see in the hemicranias of the gouty or arthritic.

The first class of patients are benefited by rest from mental toil, and by bromide of potassium; the second may require hydrotherapy and morphia; the third will need alkalies, intestinal derivatives, and especially aconitia.

I have finished this long exposition of the treatment of neuralgia—exposition far from complete, notwithstanding its length. I believe, however, that I have furnished you the general principles which ought to guide you in your practice.

In the combat with pain your therapeutic resources will be taxed to the uttermost, and you can only fulfil your professional duty by the intelligent endeavor *always to relieve, if you cannot cure.*—*Medical News.*

CLINICAL LECTURE ON THE AFTER-TREATMENT OF PUERPERAL WOMEN. Delivered at the Philadelphia Hospital by JOHN M. KEATING, M.D., Visiting Obstetrician to the Hospital.

Reported by W. A. EDWARDS, M.D.

GENTLEMEN.—Last week a woman entered the hospital, a few days after her confinement, in an apparently healthy condition.

In forty-eight hours, however, local cellulitis had developed, with excessive pain on pressure, tympany, and a rapid rise of temperature. In other words, puerperal fever had set in, supposed to be due to the absorption of infectious material from the uterine surface, the patient having suffered an acute laceration of the cervix in the confinement. This rapid rise of temperature, the attack setting in so soon after labor, and, withal, the onset being so sudden, with obstinate vomiting, pain, tympanitic distention of intestines, interference with respiration, and the rapid sequence of symptoms which all foreshadowed a fatal result, made her condition indeed difficult to treat. It is here, in a case like the present, that I would most strongly advocate antisepsis and even intra-uterine injections.

Dr. T. Gaillard Thomas presents an article in the *New York Medical Journal* for March 31, 1883, recommending these intra-uterine injections in puerperal septicæmia. His cases are certainly extraordinary, and if they did not come from such authority I should be inclined to doubt the accuracy of the observation. One case was delivered in a perfectly normal manner, without difficulty or assistance. The temperature at the end of the fourth day had risen to 106.5° , and the patient presented all the appearance of puerperal poisoning. There was extensive bilateral laceration of the cervix. The uterus was then washed out with carbolyzed water every four hours, and the temperature at once fell to 101° ; ten grains of quinine were given every eight hours, enough being administered to negative the idea of the high temperature being due to malaria. As soon as the temperature regained 105° , the washings were again ordered and the temperature was reduced in like manner.

Dr. Thomas also remarks that the time has arrived when we should treat puerperal septicæmia upon just as simple a plan as septicæmia of any other kind, by washing the surface where the disease originates with some antiseptic fluid. I desire to lay particular stress upon the temperature record in cases of this nature; it is the guide-post to prognosis. The fatality of an epidemic or of an individual case is in proportion to the excessive temperature. It is a fact that prolonged high temperature will

undoubtedly kill ; this is seen in no other disease more decidedly than in the one under consideration.

During my term in this house, some ten years ago, our obstetrical wards were visited by a severe epidemic of septicæmia, introduced by a scarlet fever patient. I preserved the record of forty cases of high temperature, which all presented much the same symptoms, developing tenderness in the abdomen in a short time after delivery, and in twelve hours the tympanitic distention of the bowels appeared. This abdominal distention is very characteristic, the women looking not unlike the cases of abdominal dropical effusion which you so frequently see tapped in this clinic-room.

The evening temperature generally was 104° – 105° , commonly followed by a chill, with marked signs of impaired circulation, difficult breathing, dyspnoea, local pain, more particularly noticed on pressure ; and death usually occurred gradually, in about forty-eight hours, from interference with the circulation ; the consciousness was preserved until almost the last moment. In most of these cases you will be able to trace this appalling condition of affairs to a local sore, lacerated cervix, and the introduction of septic material. Of course, in this house the conditions are more favorable for its development ; the buildings are old, saturated with germs, and the obstetrical wards but little removed from large surgical rooms which are simply reeking with bacteria, micro-organisms, etc., which are but too ready to be carried across the nominal boundary-line. You will thus readily see that the hospital accoucheur is liable to meet more of these cases than in private practice. In fact, it is rare, in an ordinary normal labor in private practice, with no laceration or tearing, and when the forceps have not been used, to meet with excessively high temperature after delivery. From the foregoing remarks you will readily appreciate that the practical point of this lecture hinges upon the *treatment*.

First and foremost, I believe that many of the cases that we hear of septic trouble are due to meddlesome midwifery ; for I venture to say that very many of the forceps cases are meddlesome midwifery. I advance this statement from actual observation. I am also convinced that forceps are too much used, and

that they are frequently had recourse to not so much for the patient's weal as for the doctor's convenience.

In primiparæ, owing to various causes, too rapid labor may occur, the head passing the os before it is fully or widely dilated, and in consequence a laceration is produced, which directly favors the entrance of septic matter and its attendant train of evils.

Let me impress upon you the fact that you hold the lives of your puerperal patients literally in your hands, and that the practitioner cannot be too careful regarding cleanliness, especially as a busy man may be tempted to go at once from a scarlatinous patient, for example, to a labor case, when he may in all probability encounter an adherent placenta, leading him to introduce his hand, teeming with disease-germs, into the womb, and laying the patient open to grave danger of blood-poisoning.

Listerism shows marked results in reducing the prevalence or liability of septicæmia, though in my opinion the nail-brush, soap, and water are quite as valuable as carbolic acid, if used frequently enough. I must confess that puerperal fever is too often simply another and high-sounding name for carelessness. I do not advocate the delivery of women under the spray, nor am I satisfied as to the efficacy of carbolic acid unless carried down and laid directly on the septic centre.

Causes.—Septic material and a denuded surface for its entrance, as an abrasion of the mucous membrane, represent the slow-match and the train. In primiparæ this mucous tissue will stretch but little; longitudinal vaginal tears or rents are therefore frequently seen, and in many cases laceration of the cervix occurs. We then have the most favorable condition offered for the production of septicæmia and hyperpyrexia: as the cervix is high up, it requires more attention in order to keep clean, and the anatomy of the part is particularly favorable to the absorption of any matter in contact with it.

For the prevention of this undesirable condition I will mention three means:

First, prevent the access of septic matters to denuded tissues by cleanliness.

Second, make proper application of antiseptics to local abrasions.

Third, administer drugs which act directly on the uterine tissue, preventing the absorption of septic material by causing contraction.

After labor you should find the womb firm, hard, and globular; after a time it will relax, become larger, the cavity opens, and the sinuses again become patulous. It is now that the septic material gains entrance and starts on its death-dealing path. Here we find the indication for drugs.

Fordyce Barker some ten years ago insisted upon keeping the womb firmly contracted, and showed very conclusively the value of ergot, nux vomica, quinia, and iron,—in fact, of all drugs which contract tissue and act on unstripped muscle-fibre.

You will find great diversity of opinion in regard to the action of these drugs; for example, some claiming for quinine a powerful oxytocic action, others stoutly denying it, and advancing as an argument the fact that Southern women while pregnant take large quantities of the drug, made necessary by their malarial climate, without any bad effects.

A paper published in France in 1872 or 1873 probably gives us the true explanation of the action of these two substances. By experiments on animals it was found that ergot did act upon the uterus, provided that it was determined to that organ by some irritation, and if this irritation did not exist it would not act. So with quinine. The conditions are the same in the human female as in the animal with the artificially-irritated womb. We thus find that ergot and quinine will be determined to the organ, in the case of the former, at all events, producing decided contraction. High temperature is a danger in itself, as it produces acute fatty degeneration of the cardiac and uterine muscular fiber and of that of the intestinal canal; in fact, all the essential muscles succumb to this pathological action; as a result we have meteorism, attended by its disastrous consequences that I have already referred to. The womb in this condition is unable to contract. The knowledge of this fact is, I take it, the touchstone in guiding the case to a successful termination, and this point escapes many in their after-treatment of these cases. Some

authorities say that this degeneration is due to fever-poison coursing through the circulation, as seen in the typhoid fever heart; but, according to my interpretation, hyperpyrexia is the root of the trouble.

Death will rapidly occur, occasionally from excessive meteorism, but generally from extreme prostration; and, as this latter condition is due to a burning up of the tissues, the important indication is to depress rapidly the temperature, prevent absorption from abraded surfaces, secure proper contraction of the womb, and relieve local symptoms. First and foremost, we should aim to secure an abundant supply of pure fresh air, make the patient as comfortable as possible under the circumstances, and administer full doses of quinine as an antipyretic and for its beneficial tonic action on the nervous system, as we know the uterus is so dependent on nerve-influences, and, furthermore, as the contractions are entirely involuntary. You may also use cold applications, spraying, etc., or the cold coil, which is so popular with English accoucheurs.

I usually, especially in this house, make it my routine practice to administer quinine and ergot immediately after labor, believing, as I do, that they exert a specific action on the womb.

I also deem it expedient to exhibit small doses of light cathartics, more especially when we are treating high temperature, a dry coated tongue, etc. Calomel is usually selected, in doses of $\frac{1}{16}$ $\frac{1}{12}$ $\frac{1}{8}$ gr., rubbed up with sugar of milk, and taken every half-hour until a decided action on the bowels is secured, when the thermometer will register a marked fall in the temperature and your patient will feel much more comfortable. I always administer this calomel treatment, even after we have sewed up up the perineum, for example. I do not at all advocate putting the bowels "in a splint," as our patients are decidedly more comfortable by having a daily evacuation, and, furthermore, there is less chance of tearing out the stitches. It is my practice to require the bowels of a parturient female to be opened before labor; but this, of course, is difficult to regulate in private practice.

As I have already told you, an important indication is to give

drugs which will promote uterine contraction. The following I find is the most acceptable way to administer them :

R. Ext. ergotæ fl.....	f3iii
Tinct. nucis vom.....	f3ss
Tinct. ferrī chloridi.....	f3ii
Acid. muriat. dil.....	f3i
Syr. limonis.....	
Aquæ, āā q. s. ad.....	f3vi

M. S.

This is usually an unpleasant mixture ; but if you direct that the acid and iron be first added together, and then the nux vomica, you will prevent formation of the tannate of iron, and consequently the inky taste.

For the same motive,—namely, to promote uterine contraction, I am a firm advocate of the binder, especially in a loose, flaccid abdomen following great stretching, and also of the use of turpentine externally. The irritation of constant pressure will secure contraction and prevent the gradual enlargement of the womb.

The Use of Vaginal Injections —This is the most important part of my lecture to-day. Dr. Thomas found, as I have already mentioned, that injections of carbolized water into the uterine cavity would reduce the general bodily temperature three to four degrees. You must use a Chamberlain tube which is of large calibre and will not allow the fluid to be introduced directly into a uterine sinus, the consequence of which would, as you know, be disastrous to your patient. If, however, the laceration is farther down in the sexual canal, you must be careful that your nurse does not simply wash the septic matter up into the womb and imprison it there : hence direct her to introduce the syringe high up, so that the water in finding its way to the external parts shall carry all septic material with it.

Personally, I do not ordinarily use syringes in private practice, and I do not meet with any higher temperature than those who use them in the old fashioned way. I depend on securing tonic contraction of the womb by firm external pressure and reflex irritation, and simply order the nurse to wash the patient thoroughly with an antiseptic solution. For this purpose I use

an old-fashioned remedy,—*i.e.*, alcohol in which is dissolved as much castile soap as is possible: this is soft, agreeable, and thorough.

In France they use solutions of corrosive sublimate as a wash, also intra-uterine suppositories of iodoform. This has reduced temperature as effectually as Thomas's carbolized water. There are also various antiseptic washes, but I will not occupy your time with them: the principle upon which they all are used is, as you know, their toxic action upon the lower forms of life.

If you reflect for an instant, you will see that the walls of the parturient canal after labor are once more approximated, and air does not enter. There is little chance for the accumulation of discharges, if you direct your patient to move about. I do not at all believe in allowing our puerperal patients to lie flat on their backs; you must order that they move about in the bed, turn from side to side, and thus relieve the canal of clots and discharges. Position, thus, to some extent, takes the place of injections. Hence I would impress upon you not to use the injection mechanically, and not to order it because it is fashionable; see to it that the nurse does not do more harm than good. Watch the heart and pulse, that their strength may be kept up and the temperature reduced. You must be prepared to associate digitalis with the medicinal treatment as soon as any tendency to heart-failure is manifest.

In some text-books, but more particularly in journals, aconite and veratrum viride are recommended in cases of puerperal fever. I warn you about these cardiac depressants. Do not let these journal articles cloud your reason; it is only in the early stages of the disease, and more especially in puerperal peritonitis, that you are at all justified in prescribing these drugs, and thus bleeding the patient into her own body, just as leeches would do externally; it is only in a typical sthenic case, in fact, in a case in which the older practitioners would bleed from the arm, that you are at all justified in exhibiting these depressants, and then my preference would be for aconite. Some, however, recommend veratrum viride. As a rule, these cases are asthenic, when the general plan of treatment must be stimulant, both general and cardiac. The study of the *vomiting* is also of great importance.

It is most obstinate and appalling in private practice; you will frequently meet with cases who cannot tolerate even a teaspoonful of pure cold water. This vomiting is of pneumogastric origin, due to the irritation of the remote fibres of the nerve found in the sexual organs.

Drugs must now be administered by the hypodermic syringe, or by rectal suppositories. Quinine may be given by the former method; there is little danger of producing abscesses, provided the solution be perfect and the needle deeply introduced into the muscular fibre.

Opium is indicated, and may be introduced by either the latter or the former method. The indication is, of course, the relief of pain or vomiting, quelling the nervous excitement, and as a tonic to the nervous system. If the pain is local and low down, a suppository is more efficacious; otherwise a hypodermic of morphia and atropia, small doses of calomel, dilute hydrocyanic acid, or complete rest of the organ may relieve the vomiting.

To secure the requisite amount of nourishment for your patient is, of course, difficult under these circumstances. Milk and lime-water frequently repeated and in small quantities is efficacious, also brandy and frozen beef-tea, or beef-juice, thus relieving thirst and supplying food at one and the same time. Koumiss will sometimes be retained when milk will not. Carbonic acid water added to the milk makes it light and palatable. Iced champagne will refresh and relieve the patient. You must use free feeding and stimulation.

I know of no more appalling death that you will witness than one of puerperal septicæmia, the patient gradually dying of exhaustion and from fatty degeneration of the heart-muscle, with consciousness fully retained until the last scene in the drama of life is over.—*Medical Times*.

DANGERS OF THE USE OF ERGOT IN PROGRESSIVE LOCOMOTOR ATAXY.

Grasset reports a case of this affection, aged 38, widower, without children, father suffered from rheumatism; had committed venereal excess; no history of syphilis. Four years ago

rheumatoid pains, and headaches lasting for two years; then, sudden paralysis of the third nerve on the right side, with diplopia and vertigo. Two or three months later disturbance of motility, heaviness in walking and incoördination; light darting pains in the limbs, but very severe in the rectum and perineum.

In 1880 the disease was well marked (disturbance of sensibility of the lower extremities), atony of the sphincters, incoördination, etc. First season at St. Malo. In 1881, second season; decided improvement. The sphincters act almost normally; the patient walks well; he spends the winter at Hyères, always better. At the end of the winter he becomes more easily tired, more heavy; however, this condition improves, and he goes to Paris to consult Charcot, who had already seen him. He is ordered at first 25 centigrammes of ergot a day; increasing steadily at the rate of 5 centigrammes a day, until 1 gramme is taken. The patient was ordered to continue at the rate of 1 gramme a day for three days, then to stop and take in place of it the nitrate of silver. The patient returns to Marseilles, and continues the treatment without consulting any local physician. He takes the ergot, and the second of the days when he is to take one gramme daily, he has paralysis of the four extremities and of the voice; he cannot stir, and says he felt the paralysis coming on for a day or two past. The sensibility is much diminished in the paralyzed limbs, even in the upper extremities, which had up to that time always been intact. He has no pain anywhere, but cannot move; he can neither rise nor remain seated, but is condemned to absolute immobility. He stops the ergot immediately; a steady improvement at once begins. At the time of the examination by Grasset the arms have almost completely recovered, the patient writes. The voice is entirely restored. He can seat himself very easily on his bed, and remains seated. Some urinary difficulty persists, no disturbance of the rectum, has incoördination in the movements of the lower lids, especially when the eyes are closed; slight ptosis of the upper lid; no patellar tendon reflex; very slight disturbance of the sensibility of the lower extremities.

The author believes himself justified in attributing this sudden and marked change for the worse to the noxious influence of

ergot. The patient at the time he began taking it had been steadily improving; during its continuance paralysis comes on; the remedy is stopped, and, at once, there is an improvement. Nor has the dose given been at all excessive; the majority of authors, who recommend it, give more. Hammond advises from five to six grammes daily continued for several months; Erb, who scarcely recommends it, cites Waldmann and says he gives from one to two grammes daily. Since the labors of Brown-Sequard, ergot has been considered as indicated by hyperæmia of the spinal cord, and the fact that the patient was experiencing some fatigue, and that therefore an increase of the trouble was imminent, would seem to have fully justified its use. Yet the result was disastrous.

The author then quotes from Nothnagel and Rossbach with reference to the physiological action of ergot on the spinal cord: "In warm-blooded animals, the aqueous extract of ergot in comparatively small doses, and doubtless sclerotic acid also, produce anæsthesia, and disturbances of coordination; in large doses they cause paralysis, during which the animal manifests neither voluntary nor reflex movements and is insensible to the most painful irritation."

But the last results published by Tuczek are of particular value with regard to the case of the author. Following a severe epidemic of spasmodic ergotism, which affected 500 persons in a country of 2,500, 29 persons affected with psychical troubles entered the hospital at Marburg. Tuczek's report embraces the last eighteen of these, on four of which an autopsy was made.

All the patients manifested symptoms of lesion of the posterior columns of the cord; in the four cases which succumbed, this lesion was proven anatomically. In all cases, the knee reflex was absent and did not reappear when the cure in other respects seemed complete. The other spinal symptoms were: Paræsthesias, formication, darting pains, anæsthesia, analgesia, symptom of Romberg ataxia. In some cases the complete picture of dorsal tabes developed. The four spinal cords examined belonged to individuals of 9, 16, 20 and 33 years of age. The lesion of the posterior columns occupied the entire length of the cord; in two cases it could be followed into the medulla; it was

symmetrical on the two sides and was limited to Burdach's columns. In the most marked case, where the lesion involved nearly the whole of the posterior columns, it was seen that the process was older and more marked in the lateral fasciculi. Tuzcek concludes that ergot had produced in all the individuals a systemic spinal lesion, absolutely identical with tabes dorsalis. A great number of experiments in animals had failed, but he had seen the hypodermic injection of sclerotic acid produce a veritable ataxy in rabbits.

This last fact, if confirmed, is of great value to experimental pathology. It is most important that ergot develops in certain cases posterior spinal lesions comparable to those of locomotor ataxy as well as in their pathology as their symptoms. For this reason the author urges the most stringent precautions in the treatment of locomotor ataxy by ergot.

J. E.

—*From the Progres Medical, in the Cincinnati Lancet and Clinic.*

NOTES ON CHOLERA AND ITS TREATMENT. By Surgeon-General C. A. GORDON, M.D., C. B., Honorary Physician to Her Majesty the Queen.

Diarrhoea may occur as an independent affection in times of cholera, or it may happen as an early stage of the latter disease. When cholera prevails it is difficult to decide correctly and with precision where diarrhoea as such ends, and where distinctive cholera begins. The symptoms of the two affections differ in degree rather than in kind; but it is usually considered that the retention of color in and slower progress of diarrhoea by itself are to be taken as indicative of the milder malady.

Diarrhoea, when it occurs as a premonitory stage of cholera, has a duration seldom exceeding three days. As regards the prevalence of this affection among masses of population, it has been observed to vary from a few days to several weeks. In 1866 statistics regarding this point were taken in London. In 41 examples on that occasion recorded, the duration of the diarrhoea in 3 cases was 12 hours, in 1 case 18 hours, in 1 case 19 hours, in 7 cases 33 hours, in 12 cases 2 days, in 6 cases 3 days,

in 2 cases 4 days, in 2 cases 5 days, in 1 case 6 days, in 1 case 7 days, in 2 cases 2 weeks, in 1 case 5 weeks, in 1 case 8 weeks. The general result of these observations shows that in more than half the number of cases diarrhoea preceded the more marked symptoms by less than three days. On that occasion in London there was a subsidence of diarrhoea before the outbreak of cholera. A similar subsidence had preceded the outbreak of 1848-9 and 1853-4.

In some instances epidemics of diarrhoea have been considered to be really epidemics of cholera, although occurring in that form. In 1836 this was the case in the Indo Chinese fleet. On that occasion the epidemic of diarrhoea which prevailed was considered to take the place of cholera which had in previous years occurred in the same fleet. At Huddersfield in 1849, diarrhoea and cholera prevailed simultaneously in so defined a manner that the cause which produced them both was considered to be identical, only the form of resulting disease to differ in different individuals. At Oxford in 1852, deaths took place by diarrhoea without the cases passing into confirmed cholera. And similar occurrences are noticed in other epidemics of the disease.

Persons coming from infected localities have been attacked with diarrhoea within a period extending to fourteen days from the date of their departure, the disease in them undergoing no farther development; and yet confirmed cholera occurred in the locality into which such persons had entered. Occurrences of this nature happened in France during the epidemic of 1855—notably at St. Germain, Melissy, St. Barthèlemy, and Villedieu. The Constantinople Commission acknowledged that cholera could be propagated in this manner.

It has come to be acknowledged as an axiom that the more severe the impending epidemic of cholera the shorter is the period of premonitory diarrhoea. In young persons diarrhoea in connection with cholera is considered to be of more frequent occurrence than it is in those more advanced in years. In a number of instances cholera has manifested a partiality to individuals habitually subject to diarrhoea.

Diarrhoea is said to occur more frequently in attendants on cholera patients, and in them to take the place of the more de-

veloped disease. In 1873 this circumstance was noticed in connection with the epidemic at Ottawa.

But although diarrhoea often precedes cholera, this does not happen invariably. There was no premonitory diarrhoea on the occasion of the cholera outbreak in the 86th Regiment at Kur-rachee in 1846; none in the Madras epidemic of 1848. In the French epidemic of 1855 diarrhoea is mentioned by 97 reporters; by 15 its occurrence is considered exceptional. In the Crimea in that year our troops were seized, in many instances, with collapse of cholera without any premonitory symptoms whatever. At Gateshead in the same year 55 persons who went to bed in perfect health on the 25th of December, were attacked with cholera before sunrise on the 26th; and of the number so attacked, 32 were dead before sunset. In 1861 there was no marked prevalence of diarrhoea before or during the epidemic of cholera at Delhi. In 1866 diarrhoea, and indeed all other premonitory symptoms, were absent on the occasion of the cholera outbreak at Mean Meer. At Peshawur the attack of cholera in the 12d Highlanders was sudden, and unpreceded by premonitory symptoms. Other instances could be given in illustration of the fact that, although on occasions cholera is preceded by diarrhoea, this is by no means an invariable occurrence.

The success of the treatment applied in cases of cholera depends in a very great degree upon the early use of that treatment. For example, in London in 1849, there were treated 43,737 cases of "premonitory" diarrhoea, and of this number 58 only developed into cholera. In that year throughout England there were treated 130,000 cases of diarrhoea, of which number only 250 passed into cholera. A question was raised as to whether many of the cases so treated were not cases of simple diarrhoea. Perhaps they were; it is impossible to say. From calculations made in Glasgow in reference to the epidemic of that year, it has been stated that of persons treated within the first six hours after attack by cholera 21 per cent. died; of those first treated between six and twelve hours after attack, 33 per cent.; of those between the twelfth and twenty-fourth, 45 per cent.; and of those treated later, 66 per cent. In India the importance of early treatment is universally recognized, and special orders on this

point are enforced in respect to soldiers. In 1877 the observance of such orders was followed by important success at Madras.

Briefly, the remedies administered in the stage of premonitory diarrhoea comprise carminatives, antispasmodics and astringents.

In the treatment of fully-developed cholera remedies of the most diverse nature have been used from time to time. Perhaps the earliest method on record was that which of late years has been called the "eliminative." That method dates from the year 360.

In the sixteenth century venesection, ligatures to the head, limbs and loins, acupuncture, pepper in rice-water as a drink and applied externally, were the means employed. After the violence of the disease had passed, purgatives were given.

In the seventeenth century the natives of India withheld liquids from patients affected with cholera, and cauterized the soles of their feet. Among the remedies administered were diffusible stimuli, saffron, opium, vegetable astringents, and ammonia. Towards the end of that century, and in the early part of the eighteenth, the French Missionaries at Trichinopoly administered to the cholera patients "*un peu d'eau bénite et se mit à réciter quelques prières,*" with the happy result, as stated by themselves, that "*le malade guérit subitement.*"

Among the remedies used in the eighteenth century were the following:—Calumba root in 1756; cassia fistula and rhubarb in 1761-63; opium and rice-water in 1769; Glauber salts with tartrate of antimony, in doses of one-eighth of a grain, in 1782; Madeira wine, laudanum and cordials also in that year; castor oil at Arcot in 1787; large doses of opium at Batavia in 1789.

During the portion of the nineteenth century already gone, methods of treatment in their nature absolutely the opposite of each other have been used. In 1817 large doses of calomel, combined with small quantities of opium, were given. In 1831 emetics of ipecacuanha were said to have "*acted like a charm;*" on the same occasion sulphur and phosphoric acid internally were given. In 1832 venesection, used, as already stated, in the sixteenth century, was reverted to; in 1849 the same method

was for the third time practiced. Naphtha was employed for the disease as it occurred among the Prussian troops in the Caucasus; and, under the name of "elixir of Woreneje," that substance is believed to have been employed for the same purpose in Russia. In 1848-9 naphthaline and petroleum were given internally in the United Kingdom.

The use of opium vaunted by some writers is utterly condemned by others. During the epidemic in France, 1855, opium was extensively used; the result assigned to such use being that in some instances living persons were buried while in a state of narcotism only. There are many medical officers of great experience, who assert that it is chiefly among patients thus treated that the severe train of symptoms known as "secondary fever" occur.

With regard to ipecacuanha, about twenty reporters record their experience with that drug. Of 4,180 patients treated by means of large doses of it, 2,509 died.

Evacuants, praised by some writers, are by others stated to be deadly. The same remark applies to the use of tobacco fumes. Antispasmodics—notably, ether and chloroform—are used with the greatest advantage against spasmodic phenomena in the course of the disease.

Among the means applied externally and variously reputed have been frictions and excitants; hot baths, with and without aromatic herbs; bags of hot sand to the hands and feet; the application of cold; galvanism, etc., etc.

Among various other remedies used from time to time are the following, they being but a very few out of a long catalogue, namely:—Hot negus, with grated nutmeg; quinine, strychnine and nux vomica; sulphate of copper; homœopathy, practiced, it is said, during the epidemic in France with sad results; hypodermic injections of various kinds; inhalation of gases; transfusion of blood and of different saline mixtures; purges; astringents, carminatives; alkalies; sulphur; sulphuric acid; chloral, both by the mouth and hypodermically; acetate of lead; tartrate of antimony; stimulants; preparations of iron; hydrosulphuret of ammonia; olive oil; yeast; eupatorium, etc. For a time *Sumbul*, the product of *Euryngium Sumbul*, N. O.,

Umbellifeazæ, was used. In 1864 a solution of permanganate of potass was given in India.

In order to account for the insuccess of medical treatment in cases of declared cholera, the circumstance must be borne in mind that for the time being the function of absorption is in abeyance; especially is this the case in the algid stage of the disease.

But, while on the one hand there is no certainty of saving the life of a person attacked with cholera, neither is it right or justifiable to despair as to the results of means reasonably employed, even in cases the most desperate.—*Medical Press and Circular*.

THE GERM THEORY OF TYPHOID FEVER, AND THE TREATMENT OF THIS DISEASE BY SALICYLATE OF BISMUTH.

The tendency of the age is undoubtedly to account for all the contagious febrile affections, as well as many chronic diseases, by the hypothesis of a specific microphyte, whose ravages constitute the pathogenetic element. This tendency is exemplified in the theory, recently formulated, and ably supported by Klebs, of Prague, and Eberth, of Zurich, as to the etiology of typhoid fever.*

According to these pathologists, typhoid fever is due to a peculiar microbe which presents itself in the form of rods or filaments, some of which contain spores. Between the rods and the filaments transition forms are observed, which make it probable that the latter are derived from the former.

These micro-organisms have been found by Klebs, in accordance with the period of the disease from which death resulted, in the following localities: 1, in the intestine, first in the glands of Leiderkuhn, later in the interglandular tissue and in Peyer's patches, still later in the submucous cellular tissue, and even in the muscular layer; 2, in the mesenteric glands; 3, in the spleen; 4, in the lungs (the parts affected with hypostatic pneumonia); 5, in the brain.

He has also found them in abscesses complicating typhoid fever,

* *Bulletin gen. de Therapeutique*, June 30, 1883. Desplat's article, to which we are indebted for this summary.

in ulcerations of the larynx, in the kidneys, the myocardium, etc. In these various sites he has detected the same microbe, and in numerical abundance proportioned to the disorder of function of the organ where the bacillus has been found. Klebs has made many cultures of the microbe, and has inoculated animals with the final product, reproducing in hares, pigeons, guinea-pigs, etc., the characteristic anatomical lesions of typhoid fever.

Eberth, of Zurich, after an independent series of investigations, has found in the lymph-organs of the abdomen—intestinal mucous membrane, mesenteric glands, spleen—certain rods whose characters correspond with those noted by Klebs. These rods have, in fact, been identified with Klebs' bacilli.

Klebs gives a graphic *résumé* of the march of this malady. The bacillus typhosus, or its spores, are taken into the mouth and pharynx in the act of respiration, and are carried to the stomach with the saliva or food. Arriving in the small intestine, they produce by their multiplication a diffuse catarrhal inflammation, and commence to penetrate the mucous membrane. This anatomical stage corresponds to the period of incubation of the disease, a period characterized by anorexia, prostration, and a slight febrile movement. At this epoch the disease is still local; it is not till later, when the bacillus has effected an entrance into the blood and has invaded the organs, that we witness the second "classic" stage, the stage of infection, characterized by fever, cerebral symptoms, etc. At the same time the intestinal inflammatory process concentrates itself on Peyer's patches, which finally become necrosed and eliminated. The microbes, moreover, may multiply in the spleen, brain, lungs, and produce there grave disorders.

It sometimes happens that the bacillus first undergoes development in the lungs; the disease then commences as a pneumonia (typhoid pneumonia); at the autopsy the intestinal lesions (when they exist) are more recent than the pulmonary lesions.

The primitive lesions of the intestines are not always in such direct relation to the secondary lesions of other organs, that to the intestinal alterations, however extensive and profound, corresponds a proportionate perturbation of other functions of the economy. The autopsy often demonstrates that the intestinal

ulcerations may be most marked and grave, at the same time that the general infection may have been almost nul; such are the cases described as *typhus ambulatorius*, or walking typhoid. On the other hand, with general infection and serious constitutional symptoms, the local intestinal lesions may be inconspicuous or wanting. In a word, typhoid fever comprehends two distinct diseases; the local intestinal lesion, and general infection with localization in different organs. These two factors of this complex disease are synchronous in a part of their duration. The first precedes the second, and the latter is in full evolution while the lesions of the former are undergoing reparation.

The germ theory of typhoid fever is far more probable than the chemical theory; in fact, we can imagine no chemical ferment or "poison" which is capable of producing such phenomena, while the hypothesis of a *contagium vivum*, infinitesimal in its commencement, pullulating in the system, and invading important vital organs, which are robbed by it of their life-sustaining oxygen and pabulum, till the environing conditions are no longer favorable for the maintenance of the parasite, well explains all the striking phenomena of the disease. Moreover, important inductive evidence is every year making the microphyte theory less an hypothesis and more a fundamental fact in pathology. The inoculation experiments of Klebs, above alluded to, constitute the kind of proof now demanded.

Almost all pathologists being convinced of the germinal origin of all contagium, there is a dominant desire on the part of therapeutists to attack the microbe by suitable germicides in the alimentary canal or in the blood, to prevent its multiplication and effect its destruction. There is very general agreement that we are not yet in possession of any sure and safe means of combating the germinal *materies morbi* when once it has effected entrance into the blood. No one has more clearly shown this than Professor Germain Sée in a late lecture.* Quantities of any known antiseptics, such as would be necessary to rid the blood of the parasitic contagium would be toxic and speedily fatal to the organism. This is notably the case with such germicides as bichloride of mercury, chlorine, iodine, carbolic, and

* *Traitement de la Fièvre Typhoïde*, Paris, 1883.

even salicylic acid. Salicylic acid, the only acid to be seriously thought of in this connection, has never yet been given in sufficient doses to arrest typhoid fever in its march, or even materially to modify its evolution. Professor Sée has known of a rheumatic patient who, while taking ten grains every two hours of salicylic acid for several days, was nevertheless attacked by typhoid fever, which pursued its usual course.

Being then debarred from any safe and certain chemical antidotes against the morbid bacillus when it has pervaded the system, our therapeutical efforts are diverted to other indications, such as the support of the vital forces in the struggle in which they are engaged. But can we do nothing to effect the destruction of the disease-germ while it is in the alimentary canal, before it has penetrated the tissues or gained the circulating fluid? Not a few distinguished therapeutists have answered this question in the affirmative, notably Gueneau de Mussy, Herard, Hallopeau, Liebermeister, Wunderlich, and in this country, Dr. James C. Wilson and Roberts Bartholow.* The treatment of the last two authorities is essentially identical. Calomel is given in full purgative doses during the first week. This is exhibited for a double purpose, to restore heat production and to destroy typhoid germs in the intestine. Iodine is given throughout the disease, in combination with carbolic acid, or as Lugol's solution. Bartholow's formula is two parts tincture of iodine to one of strong carbolic acid; of this from one to three drops every three hours during the day and night.† By this medication it is intended to arrest the multiplication of germs in the intestine and prevent fermentation.

Professor Henri Desplats, of Lille, is favorably known by his numerous theses on the antiseptic treatment of fevers, especially by a memoir published last year on the treatment of typhoid fever by carbolic acid. After long experimentation with various salicylates in typhoid fever, he has found in the salicylate of bismuth the great desideratum. It is sparingly soluble, and therefore is

* *Vide* Wilson on Continued Fevers, p. 228. New York, William Wood & Co. Also an able statement of Wilson's and Bartholow's antiseptic method of treating typhoid fever in the *New York Medical Journal*, vol. xxxvii, page 298.

† *Boston Medical and Surgical Journal*, February 1, 1883.

more likely than most medicaments to escape absorption in the stomach and to reach the diseased intestine. It moreover has an energetic action on the organized ferments, and is a bactericide of great power. Taken during the prodromic period, when the infection is purely intestinal, the microbes not having entered the blood and tissues, its efficacy is greater; in Dr. Desplat's experience it has even had a marked abortive action. Thus, out of twenty cases reported by him, eleven (or more than one-half) treated in the first stage were cut short in four or five days under the free use of salicylate of bismuth. At least this is the belief of the professor, who gives the particulars of these cases with great minuteness, showing that the patients had all the characteristic symptoms of the disease with varying degrees of severity. In four cases the bismuth salt had a very decided moderating effect on the temperature, but the disease was prolonged by complications. In five cases, all of which were very grave, the action of the medicament was nul. The ordinary dose was about a scruple. This was repeated sufficiently often, so that the daily quantity taken should equal about six grammes (or about one drachm and a half). In some instances, where the fever-heat was excessive, the salicylate was given in one full dose of three, or even six drachms, but these large doses proved somewhat depressive. The medicament is not unpleasant to the taste and is easily borne. In short, the perusal of this article seems to justify the hope that in the salicylate of bismuth we have a new medicament of very great antiseptic value.—*Medical Record*.

SOME POINTS IN THE REPARATIVE SURGERY OF THE GENITAL TRACTS.

Dr. M. A. Pallen of New York, in a paper on this subject, writes: All fallings of the uterus, from the slightest prolapse to the completest procidentia, necessarily involve most or less folding of the vagina upon itself; and, should the substructure, the perineal conjunction, be absent, the process of vaginal folding ultimately becomes complete inversion. Without the necessary amount of time to properly discuss the relations of

vaginal dislocations to the perfect integrity of the perinæum, I propose to formulate certain propositions.

1. Should there be perineal laceration, even if the uterine structure and circumuterine spaces be perfectly normal, the organ, sooner or later, necessarily sinks in the pelvis, most frequently in retroversion.

2. All perineal lacerations, from a simple submucous muscular sundering (of the *transversus perinæi*, *sphincter*, and *levator ani* conjunctions), to a rent that extends into the bowel, necessarily beget vaginal dislocation, primarily as a slight, later as a complete rectocele, to be followed by a prolapse of the anterior wall, causing urethrocele and cystocele.

3. Urethrocele and cystocele seldom occur spontaneously; they ensue from pressure above (very rarely), or they follow from perineal sundering or laceration. I have never seen a case of cystocele, or even much urethrocele, that was not associated with some prolapse of the posterior vaginal wall.

4. All operative procedures for the *suspension of a prolapsed uterus must be directed mainly to the posterior vaginal wall*, because it arches upon the perinæum below and the uterus above, serving chiefly as a column of support. The anterior vaginal wall, being straight and shorter, serves rather for the support of the urethra and bladder, and being adherent to the pubo-vesical spaces, it prevents the full bladder from rolling the uterus in retroversion.

5. Operations restoring the integrity of the perinæum and posterior vaginal wall, usually develop symmetrical correlations of the canal. In cases of complete procidentia, a perinæum restored by plastic procedures which strengthen the recto-vaginal septum will eventuate in a permanent cure, a condition I have never seen in making operations confined strictly to the anterior vaginal wall.

These propositions assumed, I feel satisfied that very many successful issues of *perineo-vagino-plasty* prove that the theory upon which the operation was based is correct, viz., that the conjunction of the *transversus perinæi*, *sphincter ani*, *pubo ischio-coccygeus*, and *levator ani* muscles, (described, but never actually demonstrated as the perinæum) is the true and correct

foundation upon which the posterior vaginal wall rests, and that the support rendered by the connective tissue in front of the rectum is but secondary, in consequence of the variable calibre of the bowel. The anterior column of the vagina is straighter and shorter, and, as before said, mainly supports the bladder and urethra; but the posterior vaginal column, added to the masses of blood-vessels furrowing the peri-vaginal connective tissue, tends to support the uterus; therefore, when the basement support of the vagina (perinæum) gives away, it folds down upon itself, and drags the uterus in retroversion. I would state *en passant*, that I exceedingly doubt the efficacy of the so-called ligamentous support of the uterus, farther than the misnamed structures (broad ligaments) serve as vehicles for carrying masses of erectile tissue and blood-vessels; and that in the healthy female the uterine body maintains its normal plane, or it is lifted, or it is depressed therefrom, in consequence of plentitude or emptiness of these same blood-vessels. Furthermore, I am disposed to think that all misplacements, except from direct or mechanical causes, depend upon fracture or destruction of the connective tissue in the circumuterine spaces, because of pathological changes in the blood-vessels.—*British Medical Journal*.

CASE OF CO-EXISTENCE OF DIPHTHERIA AND TYPHOID FEVER.

Dr. C. E. Paget, F.R.S., Regius Professor of Physic in the University of Cambridge, describes the following case:

The recent illness of the Postmaster-General may add interest to the following case. The patient was Mrs. J. K., a married woman, about twenty-eight years of age, living in Manor street, Cambridge. Three days before her illness began one of her children had died of diphtheria, two of them having been affected. Mr. Carter, who attended them, had no doubt as to the diagnosis. The children had sore throat and exudation upon it.

When I first saw Mrs. K. (on December 14, 1861), she had been confined to her bed about a week. From Mr. Carter I learned that her illness had begun with sore throat, and that there had been small white diphtheritic patches upon the throat. When I examined it I could find none, nor any signs of diph-

theria; but upon her abdomen were some of the rose spots characteristic of typhoid fever; and at the base of her right lung, to the extent of two or three inches, the percussion sound was dull, and small crepitation could be heard. She was feverish; her pulse was 130; her bowels loose. She was in the seventh month of pregnancy.

For six days she continued in much the same state, as an ordinary case of typhoid fever, with moderate pneumonic complications; her bowels loose; her pulse above 120; her tongue dryish, and a general condition requiring wine and brandy. During these six days her throat remained free from diphtheritic appearances; but on the morning of December 20 it again became sore, and in the evening the uvula and soft palate were covered with a white exudation, the adjacent parts being bright red. Her pulse then became a little less frequent, falling to 116. Chlorate of potash was now prescribed in small, frequent doses, and next day tincture of perchloride of iron. On December 28, her urine contained albumen. The exudation, after its reappearance on December 20, was seen from day to day; it had a diphtheritic character, and was very extensive. It was still present, though somewhat reduced in extent, on January 2. When I saw her on January 5 it had been completely cleared off.

Early in January she began to suffer much from retching and vomiting. She was troubled also with cough. The right lung was consolidated at its base, but to a small extent only. The vomiting so persisted from day to day as to bring her into great peril. On January 20 the liquor amnii escaped. Active delirium now came on, and continued for upwards of twelve hours, when she suddenly aborted of a seven months' child, which lived half a day. The mother nearly died during the removal of the placenta, though scarcely any blood was lost. After labor was completed, the vomiting ceased, and she gradually recovered.

Mrs. K. had been nursed during her illness by her mother, Mrs. S., aged 58, who lived in the outskirts of Cambridge, in an isolated cottage within a large garden. On February 14, 1862, she took to her bed with typhoid fever. She had the ordinary symptoms: the rose spots, loose stools, etc. She went

on favorably until March 13, when, after sitting up near an open door, she had rigors, ushering in double pneumonia and hæmorrhage from the bowels. She died on March 24.

The chief interest of Mrs. K.'s case is in the disappearance of the local signs of diphtheria, and their suspension for six days during the continuance of the typhoid fever, and then their reappearance and persistence for thirteen days or more. This appears to me a fact, not perhaps contrary to what might be expected, but at least worth notice. It differs from what was reported in the case of Mr. Fawcett.—*British Medical Journal*.

THE TREATMENT OF HAY-FEVER.—Mr. W. F. Phillips, of St. Mary Bourne, Andover, writes: It is just over five weeks since a lady placed herself under my care for the treatment of hay-fever, or summer catarrh—a very much better name. She had suffered severely for many years, and sometimes from the end of May to near the end of July, with little or no intermission, unless she kept indoors. Her mother, it is worthy of remark, was very sensitive to the odor of certain flowers, and was affected by some of them even to the extent of fainting. She was not subject, however, to summer catarrh.

Knowing how exceedingly unsatisfactory is the treatment recommended and practiced for this disease, as is sufficiently evident from the recent communications to the *Journal* on the subject, I sought for rational indications that might guide me to the selection of a remedy. I thought of the neurosis that seems to underlie most cases of this kind, and to constitute the essential cause or predisposition on which the disease depends; of the characteristic symptoms of the malady; the injection of the conjunctiva, the hyperæmia and hyperæsthesia of the nasal cavities, the excessive secretion of tears and mucus, and then I bethought me of a drug whose physiological action might indicate the possession of the power to control such symptoms. Belladonna was the drug that suggested itself at once, and I determined to give it a trial, all the more hopefully because I remembered how strikingly useful on similar indications, and by a parity of rea-

soning, I had often found it in ordinary conjunctivitis and simple catarrh. I began with the following prescription: R Succi belladonnæ mxxiv; aquam ad ℥iij. Misce. A teaspoonful to be taken every hour till relief is obtained. The medicine was taken without the production of any undesirable effect, and with very marked advantage indeed—an advantage that became still more evident and unmistakable, both to the patient and myself, when the dose was increased from one minim to one and a quarter (half a drachm in three ounces). Once, too, when the eyelids were especially tender, the patient was advised to use the mixture as a lotion to the affected parts, and this local application was found to be a most useful addition to the internal administration of the remedy. Repeatedly, when the symptoms of an attack had been allowed to begin, the patient found prompt relief after a few doses of the drug, the catarrhal affection disappearing first, and then the asthmatic; and on taking it regularly every day after the malady had been subdued, she has found to her delight that she can take her walks abroad through blooming grass and flowers without the least protection or precaution—a thing she had not been able to do before for years.

The patient, remembering no doubt the failure of past treatment, pronounces the remedy “a great success;” but, however satisfactory the case may be, it is, as far as I know, a solitary one, and therefore stands in need of confirmation and support.—*British Medical Journal*.

NITRATE OF AMYL AND NITRO-GLYCERINE IN URÆMIC ASTHMA.—Dr. Sheen, of Cardiff, writes:

“The brief notes I give below illustrate the value of nitrite of amyl and nitro-glycerine in one of the sudden and distressing, though perhaps rare, phases of chronic Bright’s disease—viz., uræmic asthma. Nitrite of amyl, acting, probably, through the vasomotor nerves, relaxes the arterioles, and thus reduces blood pressure. As it is very volatile, on the score of economy and convenience, I always carry some of Martindale’s capsules in my bag, and these are very handy for immediate use. Nitro-glycerine is said to have much the same action as nitrite of amyl,

and, according to Dr. Mahomed, its great superiority over amyl lies in its gradual and more lasting effect, and the more convenient manner of prescribing it, and it can be taken regularly two or three times a day, or oftener, in one minim of a one-per-cent. alcoholic solution being the usual commencing dose. It is also made up in chocolate tablets, each containing one-hundredth part of a minim; but its action, when given in this form, is not so rapid as that of the alcoholic solution.

M. P., aged 55, retired from business May 4, 1882. Has been ailing for two weeks, but has been about. Has noticed swelling of legs toward night for two months, and his face has swollen occasionally for the last month. Has always been careless of his health, and if he got wet—an event which happened not unfrequently—he would never change his clothes. He was taken suddenly ill last evening while out walking, about a mile from home, and had to be taken home in a cab. On visiting him at 10 A.M., I found him sitting up in bed, gasping for breath, countenance distressed, and of a sickly, pallid hue. Pulse feeble; temperature 98° ; tongue pale and sodden; expectoration frothy, with some little blood intermixed; moist *roles* over whole chest, back and front; urine abundant, clear, containing one-fourth of albumen. At 2 P.M. I found his condition and posture unchanged; he could only speak a few words before he had to stop for breath. He inhaled three minims of nitrite of amyl (a capsule broken in a handkerchief). Within a few minutes his breath was easier, and he was able to recline in bed for the first time since the attack came on before I left the house. I then put him on nitro-glycerine one hundredth part of a minim *ter die*.

May 5—He was lying easily in bed, breathing quietly, and expressing himself as feeling quite well, said he was only waiting till I came before he got up. I cautioned him that his life hung by a thread, and that he could only hope to continue it by the strictest obedience. Unavailing caution. On the 6th he still remained in the same improved condition. The next day he refused to take any more medicine, but promised to stay in the house—a promise which he did not keep. On the 16th he had

another attack, and died quietly within thirty-six hours, the urine being loaded with albumen."—*British Med. Journal*.

THE PICRIC ACID TEST FOR ALBUMEN.—Dr. George Johnson, M.D., F.R.S., Professor of Clinical Medicine, Senior Physician to King's College Hospital, writes :

It should always be borne in mind that, in testing for albumen, the *picric acid must be in excess*. A few drops of a saturated solution of picric acid in a highly albuminous specimen will form a coagulum, which is quickly re-dissolved. When urine contains much albumen, it should be mixed with its own volume of the picric acid solution ; and in testing a fresh specimen, it is better to begin by adding an equal volume of the test liquid.

One difference between picric acid and nitric acid as tests for albumen is, that whereas an excess of nitric acid, especially when the urine is heated, will entirely re-dissolve the previously precipitated albumen, no excess of picric acid will re-dissolve the precipitate which it has once found in an albuminous solution. Picric acid solution on the surface of the urine is applicable only for the detection of a minute trace of albumen. For this purpose, in my paper read at the Clinical Society, I advise that a column of urine four inches in height should be poured into a six-inch test-tube, and upon this one inch of the picric acid solution. The result is that the upper layer of the urine is mixed with about its own volume of the test liquid ; and if albumen is present, the stained portion of the urine is instantly rendered more or less opalescent, and thus contrasts with the unstained and transparent urine below. If the picric acid solution were allowed to flow so gently on to the surface of the urine as merely to come in contact and not to become mixed with its upper portion, the albumen, if present, would not be detected, or it would be indicated only after an interval of some minutes, when the two liquids had become mixed by slow diffusion. There must be an actual mixture in equal proportions, and not merely contact of the two liquids, to ensure the action of the test.

The slight opalescence caused by the picric acid solution in a

sample of urine which contains a mere trace of albumen is always increased by the application of heat. So that, if the flame of a spirit-lamp be applied to the upper part of the opalescent column, this will become more opaque than the lower part, which had not been exposed to heat. I now invariably apply heat to a specimen of urine which has been rendered opaque, or more or less coagulated, by picric acid; my chief reason for this practice is to ascertain if peptones ever appear in the urine. In a paper published in the *Journal* March 31st, p. 614, I have shown that, whereas the albuminous precipitate with picric acid is rendered more opaque and coherent by heat, the precipitate which picric acid gives with peptones is entirely re-dissolved by heat, considerably below the boiling point.

The microscope alone would serve to distinguish the precipitate caused by picric acid with peptones, with urates, and with albumen respectively.

The precipitate recently thrown down with artificially prepared peptone appears under the microscope quite homogeneous, and free from solid particles; but when the precipitate, having been dissolved by heat, re-forms on cooling, it seems to consist of numerous very minute, apparently globular particles, in which the so-called "Brunonian movement" is very active. The microscopic appearances of uric acid and urates are so well known as to need no description.

The precipitate produced by picric acid with albumen presents irregular clusters of granular material, which appear much larger and more opaque after the application of heat. According to my experience, a deposit of uric acid and urates is about as rare a result of adding picric acid to urine as a similar deposit caused by nitric acid; and hitherto I have met with no specimen of urine in which the presence of peptones has been indicated. A deposit thrown down by picric acid and re-dissolved by heat, may pretty safely be assumed to consist of urates, but in any case of doubt, the addition of Fehling's solution and the microscopic appearances will at once serve to distinguish between precipitated peptones and urates.—*British Medical Journal*.

THE HYGIENIC TREATMENT OF ALBUMINURIA. BY GEORGE B. SHATTUCK, M.D.

Senator delivered lately a lecture on this subject before the Berlin Medical Society, *which derives its value less from any novelty of the remarks than from the authority of the speaker in regard to renal disorders. Senator's conclusions are confirmatory of the best American and English writers' recommendations as to the treatment of albuminuria. After reminding the reader that the albuminuria is a symptom and measure of a disease, not a disease itself, that the amount of albumen lost—two and a half drachms daily being a very large amount—is not serious, though the local effect of its passage through the renal tissues is very possibly injurious, and alluding to the general recognized inadequacy of drugs in chronic albuminuria, Senator takes up the various points of hygienic treatment which offer hope at least of alleviation and prolonged comparative health, and among such emphasizes especially the following: (1.) The question of the nourishment of patients with nephritis should include a consideration of the influence exercised upon the albuminuria both by the condition of the digestive process itself and by the character of the nourishment. (2.) The rule may be accepted in general that with albuminuria the wants of the system should be supplied rather by frequent small quantities of food than by larger amounts at longer intervals. (3.) Eggs should be forbidden; meat and cheese used sparingly, and of meats preferably veal or poultry; fish is to be recommended; fruit and vegetables are indicated, but the leguminous varieties less so; the use of fat is to be governed by the state of the digestion; spiced, smoked and salted viands are unsuitable; red wine may be used moderately; beer, spirits and the heavier wines are to be avoided; a milk diet is extremely useful, but that it may be sufficiently prolonged bread or some similar addition should be made. (4) Saline or alkaline,—saline waters, warm or cold, according to the case, are found practically to act favorably, and this probably by effect upon the digestion and composition of the blood, as theoretically they should be a renal irritant; saline baths are useful through their congestive and stimulating effect upon the skin. (5) Mus-

* *Berlin Klin Wochschr*, No. 49, 1885.

cular exertion should be very restricted. (6.) An even body temperature should be sought by clothing, by climate, by retirement to bed if necessary. For clothing, flannel should be worn next to the skin; for a climate a warm and dry one should be selected, free from sudden changes, with a mean temperature from 60° F. to 70° F. (7.) Psychical influences are of great importance in this condition. (8.) With women during menstruation the amount of albumen excreted is always increased, and they should during that period be confined strictly to bed.—*Nashville Journal of Medicine and Surgery.*

DR. OSCAR A. KING, Professor of Diseases of the Nervous System in the College of Physicians and Surgeons of Chicago, is about starting a private hospital for the insane at Lake Geneva, Wisconsin. Its location at Lake Geneva, inasmuch as it places the institution beyond the reach of adroic law that govern the commitment of the insane in Illinois, and yet near enough to be taken advantage of by the unfortunates of the State.

THE American Microscopical Society has just closed its session. The meeting was large and exceedingly profitable. At the reception given to the Society by the Calumet Club, of this city, four hundred microscopes were on exhibition, and during the evening at least one change of slide was made, making an exhibition of at least eight hundred unique objects.

WE had the pleasure of a call from our friend, Dr. R. J. Patterson, of Bellevue Place, a hospital for the insane of the private class, at Batavia. His institution is always well filled with patients. It has the entire confidence of those who know anything about its admirable management. It has been in successful operation since 1867.

DR. J. SUYDAM KNOX has returned from a month's vacation, in excellent health.

DR. SIMEON STRAUSSER, of Chicago, is travelling in California.

DR. JOSEPH P. ROSS, of Chicago, is at Cape May.

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ARTICLE I.

ON THE LYMPHATIC SYSTEM. By W. GODFREY DYAS, F.R.C.S.
(Read before the Chicago Medical Society.)

Some years have now elapsed since I had the honor of reading before the Physical Society of Dublin, then existing, a paper on the subject which this evening will occupy our attention. On that occasion none could foresee all the light that has since been shed on a subject that still requires further illumination. To the microscope and chemistry are we indebted for many advantages not enjoyed by those who preceded us, though they brought to the task of investigation minds of a superior order, improved by discipline and culture. Yet with all the aid we have derived from advanced science and art, much remains for future investigation. Before I proceed to the consideration of the diseases of the lymphatic system, it may not be uninteresting to pass rapidly in review the opinions of former inquirers, as well as these of

more recent times, regarding the anatomy of this system. And as we take a retrospect of the past from the fancied eminence we now occupy, we must not suppose the survey presents nothing but a barren and unprofitable scene; although we must acknowledge that our ignorance still of some of the more important points of lymph, its vessels and glands in a state of health, serves as an obstacle to any very extensive pathological inferences. Under the Ptolemies, in Egypt, the first discovery of the chyloferous vessels was made by Erasistratus. In the vivisection of kids he observed them, and mistook them for arteries. Hierophilus, an anatomist also of the Alexandrian school, saw them. He traced them from the intestine to their termination in the mesenteric glands, and concluded they belonged to the venous system. The existence of this portion of the lymphatic system was tacitly acknowledged by men of science, although uninformed with regard to its office until the time of Galen, who opposed the hitherto received opinions of the Alexandrian school. He omitted the necessary condition of vivisection, not being aware that chyle flowing along its vessels so as to present its milky hue, must be seen, if seen at all, during digestion, and at the moment of opening the abdomen of a living animal. From physiological considerations, based on the fact that the general system was supported by the ingesta of the digestive apparatus, and by the additional fact of the diameter of the tributaries of the vena porta far exceeding that of the corresponding arteries, Galen constructed a theory, which, unlike most of our theories, prevailed for fourteen centuries. He supposed that the nutritive fluids were drawn from the surface of the intestines by the radicles of the mesenteric veins, which carried them to the liver, whose special office it was to convert them into blood. Thus until the sixteenth century this theory held undivided sway, and by the authority of the promulgator, in addition to its plausible simplicity, paralyzed the efforts of future investigators.

At length, in 1532, Massa and Gabriel Fallopius, of Pisa, discovered lymphatic vessels—the former those of the kidneys, though he could not trace them to their origin or termination; the latter those of the liver, which he followed to their termination in their glands. In a few years subsequently Eustachius

discovered the thoracic duct in the horse, and though having followed it in its course along the spine and through the diaphragm, he acknowledged that *there* he lost sight of it, and could not say how it terminated. None of these inquirers knew what were the functions of these vessels; and matters thus remained until Aselli again saw the chyliferous vessels, remarked the similarity of their contents to those on the surface of the intestine during digestion, and inferred that these vessels were the absorbents of the chyle. He was aware that they traversed the glands, but supposed they ultimately terminated in the liver. Though he denied absorbent power to the radicles of the portal system, he believed in the elaborative functions of the liver in the conversion of the chyle into blood. Hitherto anatomists relied on the dissection of the lower species of the mammalia for what they advanced respecting the lymphatic system, but in the early part of the seventeenth century Gassendi, for the first time, saw in an executed criminal the lacteal vessels.

The next link in the chain of discovery was added in 1649 by Pecquet, who traced the connection between these vessels and the thoracic duct, and saw that the contents of this duct passed uninfluenced by the liver in their course to the subclavian vein. Subsequent investigation showed that the lacteal vessels were but a part of an extensive system of vessels, spread over and through the body, and all having the same absorbent function. In 1649 the lymphatics of the liver were discovered, together with their connection with the thoracic duct; and in 1651 Rudbeck discovered lymphatics in the pelvis, thorax, and in the lungs. In short, so fortunate was he in his researches that he felt justified in establishing his right as the discoverer of an independent vascular system. It was in 1787 that Mascagni published his great work, entitled, "*Vasorum Lymphaticorum Corporis Humani Historia et Iconographia*," with plates of this system. During the previous year Cruikshank published his work in London, "*The Anatomy of the Absorbing Vessels of the Human Body*." About the same time Jno. Hunter directed his powerful intellect to the elucidation of its functions, concluding that it *exclusively* presided over absorption. This for many years was the prevailing doctrine, till Magendie in France, and Tiedeman and Gruelin in

Germany, proved by the most convincing experiments that the lymphatics were *not* the sole instruments of absorption, but that the venous system participated in this function. In 1833 Panizza, for the first time (*"Osservazioni Sulle Vasi Linfatitici, Pavia;"* and at the same time appeared Formann's work, *"Mémoire Sur les Vaisseaux Lymphatiques, Liège"*), demonstrated the networks from which arise the lymphatic vessels—a wonderful triumph of art! For from the anatomical arrangement of valves in the lymphatics of man, which are comparatively strong and remarkably numerous, it was found impossible to reach these networks by injection indirectly from the trunks, and it therefore required the most delicate instruments in the hands of experienced manipulators to directly inject the network itself.

This has been done perhaps more successfully by Sappey than by any other anatomist. He has most satisfactorily shown how unequally distributed this system is—has incontrovertibly demonstrated how many anatomists have been deceived, supposing they had injected a network. when they had forced the fluid of injection, or mercury, as it might be, into the cellular tissue, and imagined they had succeeded in filling the lymphatic capillaries of the tissue. He remarks that this occurs by not having the instrument for injection sufficiently fine in the point, and also by passing it in too deeply. Owing to these two errors, the capillaries of lymphatics, of veins and arteries, are opened and the mercury may pass, he says, into each of these orders of vessels, and even penetrate the cellular tissue.—“It is extremely rare, however, for the metal to pass into the arteries, but it is frequently seen entering the veins.” Now, it must be remembered how a subcutaneous lymphatic network lies relatively to the capillary system of blood-vessels—always superficial to it. This fact in a pathological sense is a matter of importance to know, for I hope to show that a network may be affected by diffuse inflammation without the underlying capillary system of blood-vessels being to the same extent necessarily involved in the affection.

This arrangement of the lymphatic vessels being superficial to the capillary system of the blood-vessels, is the rule as regards the cutis and such mucous membranes as have a pavementous ep-

ithelium. Where the epithelium is cylindrical, the sanguineous network is superficial. This latter arrangement is well marked in the villi of the small intestines, where the chyliferous vessel in the center of the villus is surrounded by a network of minute capillaries of the sanguineous system. Whereas, the mouth, pharynx and œsophagus present a pavementous epithelium and a lymphatic capillary network superficial to the sanguineous network. Again, the stomach is lined by a cylindrical epithelium and the vascular network of blood-vessels is superficial to the lymphatics. So far, I am unable to find an exception to this arrangement as a general rule, unless that which obtains in the lungs, where in the bronchioles and cells the vascular network is separated from the atmosphere by an extremely thin layer of pavementous epithelium. (Bert.)

Should we attempt to carry our inquiries to the source of these networks, we trace them to radicles most difficult to see, even by the aid of the microscope and nitrate of silver injections. In the villi of the small intestines they are more readily seen than elsewhere, and as there they end each in a cul-de-sac, we infer the nutritive juices enter them by endosmosis. It is now a well ascertained fact that they do not commence by open orifices on the surface of the mucous membrane of the intestine. Brucke, of Vienna, in his work, "*Ueber die Chylusgefäße, und die Resorption des Chylus*," insists upon there being no proper wall at the base of an epithelial cell of a villus of the small intestine—that there is merely a kind of border circumscribing the orifice, which is habitually closed by a mucous plug, and that through this plug fatty matters enter the chyliferous vessel. The difficulty now would be, how to get out of the epithelial cell; but Brucke maintains the apex of the cell is pierced with an opening which permits the fat to reach the sarcodic tissue of the villus, whence it easily makes its way to the chyliferous vessel; this vessel, according to him, having no proper wall, cannot therefore present an obstacle to its entrance. Wittich, Milne-Edwards and Lambl are disposed to take the same view—which, I need scarcely add, is not entertained by our profession generally. That a selective property exists in the mucous membrane is inferred from the fact that if the poison of serpents or woorara, even in the

slightest quantity, be introduced into the system by wound, the result may be fatal, yet either may be introduced within the alimentary canal and be innocuous. The following experiment made with woorara in 1850, as published in *L'Union Médicale*, p. 125, is to the point:

The gastric mucous membrane of a recently killed animal was adapted to an endosmometer, so that the mucous membrane looked outward and the endosmometer containing sugared water was then placed in a watery solution of woorara; endosmose took place in between three and four hours, for the liquid rose in the tube and yet contained no trace of woorara, as was ascertained by endeavoring to inoculate with it. If the experiment were allowed to go on for a much longer time, the endosmosis of the poison might occur; but we should then find that the mucous membrane had undergone modification, the mucus and epithelium covering it being altered so that imbibition and endosmosis of the woorara becomes possible. And if, in place of taking a quite fresh mucous membrane we take one that has undergone some change, the endosmosis of the poisonous fluid occurs instantly. It moreover appeared that all mucous membranes of the body, excepting that of the lungs, enjoy this immunity. When the poison was applied to this, the pulmonary mucous membrane, the effects were the same as if the application were made to subcutaneous cellular tissue. This is Kölliker's opinion as given in his work—*Mikroskopische Anatomie*, Band 2d, p. 169. This is the opinion generally held by the best observers, among whom we must rank Dr. Carpenter, whose words I have just now quoted. Now, the readiness with which the absorbents of this last mentioned tissue always receives the poison, as compared with the resistance of all mucous membranes to its reception, excepting that lining the bronchi, proves that the selective power is in the mucous membrane, not in the absorbents; and, moreover, the fact that this resisting power resides in the membrane of the animal recently killed, but is not retained after three or four hours, satisfactorily proves that this selective power is not merely a physical phenomenon, but is a vital process. When we examine the internal surface of the intestinal mucous membrane of a recently killed animal, in which the absorption of nutritive matter

is in full action, we observe the lacteals turgid with chyle, their extremities imbedded in numerous globules, presenting an opalescent appearance and giving to the end of the villus a mulberry-like form. This appearance is due to the epithelial cells covering the extremity of the villus, with the chyle which they have absorbed and which they afterward yield up to the lacteals. In this connection it is right that I should state that Professor Delafield maintains that connective tissue contains a very abundant system of lymphatics, consisting of canals of different sizes and of stellate spaces communicating with them. Dybokowsky and Klein describe lymphatics of the pleura. Delafield represents them in these plates: iv, vii and viii. In the fourth plate we see the pleura magnified 750 diameters; in plate vii, lymphatics of the parietal pleura of the dog magnified 90 diameters; in plate viii, lymphatic spaces and connective-tissue cells magnified 750 diameters. It is not now my intention to dwell on the discrepant opinions of anatomists regarding the existence or non-existence of the lymphatic system in the several organs; let it suffice to say that lymphatic vessels have been denied to the brain and spinal marrow, to the free surfaces of serous membranes, to those of synovial membranes, to the cornea, to the connective tissue; and, though it is conceded that the mucous membranes are generally supplied with lymphatic vessels, it is on high authority stated that the lining membrane of the uterus, of the bladder and of the conjunctiva, both palpebral and ocular is without them. Even in the cutaneous system, which in some places is richly supplied, there is nothing like a uniform distribution of them. The parts most distant from the center of the circulation especially abound in them; the fingers and toes, the scrotum, the glans and prepuce, the extremity of the nose, the pavilion of the ear, and the scalp, are the points where they can be seen in abundance. To these may be added the secreting glands, especially the mammary gland, the testes, the ovaries, the muscular layer of the gravid uterus, the liver, the lungs. The internal or lining membrane of the heart possesses lymphatics, but that lining arteries and veins does not present any appearance of them. Those among us who have seen Mascagni's plates, in which he represents the subconjunctival membrane as

a rich network of lymphatics, prepossessed as he was in favor of his theory, that the cellular tissue was the matrix of the lymphatic system, cannot avoid being struck by the apparent adaptation of the representation to the theory. Yet if we are to believe anatomists of the present day who have made repeated experiments to test this theory, we are assured that the views of Mascagni were illusive and unsupported by a single fact. Notwithstanding this, recently the German School, including such names as those of Virchow, Teichmann Ludwig, Tomsa, His, Frey and Recklinghausen, have adopted Mascagni's views as to the connective tissue being the source of the lymphatic system, though differing, respecting the mode of its origin in relation to the tissue. These men have been challenged to demonstrate this origin, but to the present they have been unable to do so. The same proof of Robin's lymphatic sheath, surrounding as with a muff the capillaries of the brain, has been demanded, and with the same success. Neither he nor His, who calls them the perivascular canals, has been able to trace them to an origin or to a termination in a lymphatic gland—a necessary condition of every lymphatic vessel—as none such in man can reach the general circulation without passing through at least one gland. Without going more into detail, we may group the prevailing opinions with regard to the origin of the lymphatics under three heads: first, The lymphatics are closed at their origin; second, They are not closed, but communicate with the corpuscles of the connective tissue; and third, They are not closed, but communicate with what Recklinhausen calls the plasmatic channels. Now, Recklinhausen does not deny the existence of these corpuscles of the connective tissue, but places them in relation to the origin of the lymphatics in his lacunæ channel, or slits of the fibrillary substance of the connective tissue. Perhaps we may receive as a dogma the position now about to be laid down, as it rests on the authority of the most distinguished anatomists of the present time.

The lymphatic vessels take their origin in a system of most minute capillaries and lacunæ, which unite to form capillaries of greater magnitude, then trunks. These lacunæ are stellate spaces, the points of which anastomose with those of other lacunæ.

The minute capillaries referred to above are extremely fine canals which unite the lacuna to each other. These minute capillaries form loops in anastomosing with the sanguineous system of capillaries, thus communicating with the general circulation of the sanguineous system. The diameter of these minute capillaries is such that nothing can enter them from the blood-vessels but serum. The lymphatic system not only concurs to absorption—it has the office of forming the solid parts of the blood. The lacunæ above mentioned are filled with very fine granulations, the first rudiments of future white or colorless corpuscles, and these are carried along by the larger lymphatic capillaries. It may now be asked, are not the several bodies which under various names are termed the hæmopoietic organs, the special organs by which these colorless corpuscles are formed? That they are not the only source of these corpuscles is evident from the fact that these are seen at the distal end of the lymphatics before these vessels meet with a gland. That they exist independently of lymphatic ganglions appears from the existence of them in the blood of some of the vertebrata that possess a lymphatic system but no ganglions. There are many sources of these corpuscles, and disease may affect an organ whose office it is to produce them without necessarily involving the supply from other sources. If we have had much divergence of opinion in regard to the origin of lymphatic vessels, we have had quite as much respecting the anatomy and functions of the lymphatic glands. Upon some points anatomists generally are agreed. In the first place it is allowed that each lymphatic gland is enveloped in a fibro-cellular capsule, that sends processes from its internal surface, dividing it into areola of varying size and shape, as these processes converge towards the center of the gland—that these areolæ contain follicles, which, with their contents of corpuscles intermixed with a delicate network of connective tissue, constitute the parenchyma or proper substance of the gland; that the afferent and efferent lymphatic vessels maintain the most intimate relations with this parenchyma, and that finally each gland is supplied in its interior with blood-vessels and nerves. In matters of detail there is, however, considerable difference of opinion. It is contended by some (Le Denteu and Lorguet) that the afferent vessels im-

mediately on passing through the fibrous capsule divide themselves into a network of capillaries formed of merely their epithelial layer lined by a thin wall of laminated tissue. From this network pass special ducts called sinuses, which penetrate deeply in maintaining relations with the blood-vessels on the one hand, and with the fundamental tissue, whether termed the proper parenchyma or adenoid tissue, on the other. The blood-vessels are closely united to the tracts of laminated tissue derived from the capsule. Vessels and tracts are completely surrounded by a cylinder, of which they occupy the center, and this cylinder is the sinus. Its internal surface is united to the external surface of the vessel and of the fibrous tract by a delicate network of connective tissue.

From its external surface a similar network passes to the parenchyma, in the midst of which it is plunged. The blood-vessels, as well as the tracts of laminated tissue by which the former are supported, occupy the axis of the sinus. The perpendicular cut of this has the form of a ring. The lymph circulates in the sinus between the central axis and the wall of the sinus. All the surfaces which are in contact with these parts, viz., the external surface of the vessel and that of the central axis—the internal surface of the wall of the sinus—the network of connective tissue uniting the latter to the axis, are covered with an epithelium of elongated cells. The same epithelium covers the connective tissue of the parenchyma. At about the third of the thickness of the gland, the sinuses terminate in another network; from this the efferent vessels arise. These no longer maintain the same relation with the blood-vessels and fibrous tracts.

These are the views that principally prevail at present on this subject. Robin, however, denies that the sinuses communicate with the proper substance of the gland. Others maintain that this communication is easily proved by means of injecting the corpuscles in the afferent lymphatics—that these corpuscles are found not only in the sinuses and in the epithelial cells that cover them, but also in the epithelial cells of the adenoid substance. To this it is objected that the injection proves nothing—that the presence of the colored corpuscles in the epithelium of

the sinus is the result of mechanical penetration, and that the infiltration of the epithelium of the trabeculæ of the proper substance is consecutive to the passage of the corpuscles through the wall of the sinus, and that it is not owing to the circulation of lymph in the proper substance itself.

The view of the distinguished Professor of Anatomy to the Faculty of Medicine of Paris does not coincide with the above. He says that in the first place the intimate texture of the glands is identical at all points of their thickness; that they comprise a fibro-cellular frame-work, constituted by an enveloping capsule and numerous elongations which extend from the latter toward the central part; secondly, a parenchyma or proper substance; thirdly, lymphatic vessels afferent and efferent, which maintain the closest relations with the substance; and, finally, blood-vessels and nervous filaments. The prolongations of the fibro-cellular capsule are very different in form and dimension. Some represent partitions, others are thicker, or round and filamentous. All these prolongations extend from the circumference of the gland to its center in continually intercrossing, circumscribing areolæ of unequal and irregular dimensions, and becoming smaller as they approach the center. The proper substance consists of closed vesicles like those observed in the thymus, thyroid body, and the spleen. These vesicles vary in size, being susceptible of considerable increase under the influence of hypertrophy, to which these glands are very liable.

The membrane which forms them is very thin, homogeneous, soft and friable. It is lined, or rather filled, with a spherical nuclear epithelium, with which are frequently mixed pavementous epithelial cells of variable size, containing a large nucleus. When these vesicles are opened they allow their epithelium to escape in abundance. They occupy the areolæ that are circumscribed by the fibro-cellular prolongations, which areolæ are themselves traversed in every direction by filaments of the finest texture. These filaments present a reticulated arrangement, hence the term *reticulum*, by which they are frequently designated. They thus appear to be a part of the fibro-cellular network of the gland, of which the fibers isolate themselves in order to form a still more delicate frame-work containing in its meshes the ele-

ment of the proper substance. This substance represents the active element of the glands. It is to it that is confided the office of reacting on the chyle and lymph, and of assimilating them, or at least of rendering them more and more assimilable to the blood, of which they are required to constitute a part. The afferent vessels divide before plunging into the gland; their first divisions creep over its surface; after a short course they pierce the fibrous capsule, then penetrate the superficial layers, where they subdivide and advance towards the deeper parts in proportion as they become smaller. These branches and their ramifications follow the prolongations of the fibro-cellular framework in advancing to the reticulum, and by their last divisions come in close relation with the proper substance. It is from the terminal extremities of these divisions that arise the first radicles of the efferents. In thus being continuous, the afferent and efferent vessels form a plexus before the latter leave the gland. This continuity may be seen in the embryo at a time when the glands are anatomically less complicated than in a more advanced stage of development. An argument in favor of this continuity may also be adduced from comparative anatomy; for, as we ascend in the scale of animated nature, we meet with no lymphatics until we arrive at the division vertebrata, and then, for the first time, in fishes we see lymphatics without glands or valves; but, in lieu of glands, we see plexuses. In the same way in reptiles we see no glands, but for the first time we see valves in a rudimentary state. In birds, though as yet the glands are not as yet fully developed, glands may be observed in the cavity of the thorax and at the base of the neck; elsewhere their place is supplied by plexuses. At length in the mammalia, in which class this symptom reaches its full development, the plexuses give way to glands. It is evident from this that in fishes, without leaving its vessels, the lymph in the lower class of vertebrata is modified in its passage through them; that in them no intervening organs are necessary to its elaboration. In a more advanced class we have further evolution in plexuses, still there is continuity of vessels. There is no interposition of cells, and yet it is to be inferred there is no want of such additional apparatus for the fulfillment of the functions of this system. Finally,

on injecting a gland and drying it you cannot see sinuses, but canals or portions of canals interlacing, like vessels in a plexus, with each other. Again, as we examine organized structures we cannot help remarking the simplicity and harmony that nature affects. Even where there is a variety of purpose you may often see a unity of design, and unless we can prove some special modification of function, we have no right, logically, to assume a deviation from the conformity to a general plan.

The lymphatic system, as all are aware, in man terminates in two trunks—one the thoracic duct, which, commencing at the second lumbar vertebra, passes to the left side of the neck, and forming there an arch, opens in the left subclavian vein, where it unites with the internal jugular; the other, the great right lymphatic vein, terminates in the R. subc. vein, where this unites with the internal jugular.

We may observe here a remarkable adaptation of means to ends, in the mode in which these two trunks discharge their contents into the blood-vessels—the convergence of the veins at an angle affording a more facile exit to them than they could have at any other point.

It may now be enquired if the lymphatic trunks communicate with the venous system directly elsewhere, and do their minute capillaries in the glands directly unite with the capillaries of the blood-vessels. We will first consider the former question.

I believe the opinion generally received is, that as we ascend in the scale of the vertebrata, the communication of the lacteal vessels with the veins becomes more and more restricted, until we arrive at the class mammalia, to which the following characteristics may be assigned: 1st. Greater development of valves. 2d. Increased number of glands. 3d. More limited communication with the venous system. Few anatomists of the present time will maintain the communication of a lymphatic trunk with the venous system elsewhere than in the junction of the subclavian and internal jugular veins; though Stene, Wepper, Schmiedd, Boerhaave and Meckel state they saw the junction with either the cava, vena azygos, hypogastric, lumbar veins or vena porta. On the other hand, we have a host of authorities denying the communication with other veins than the subclavian and

internal jugular, such as Haller, Cruikshank, Mascagni, Fohmann, Panizza, Rossi, Blandin, Cruvelhier, Carpenter and Sappey. Those in favor of the former opinion rest their advocacy of it on the acknowledged free communication between the trunks of the two systems in the lower classes of the vertebrata. Thus in fishes this communication has been satisfactorily demonstrated by Fohmann. This is well seen in the eel, where the caudal sinus, the rudimentary representation of a more advanced type of organization empties itself into the caudal vein, the orifice of which is provided with a valve. Again, in reptiles, which possess a very extended lymphatic system, this is supplied with contractile cavities called lymphatic hearts, which collect the lymph and directly pump it into veins. This provision for sending forward the lymph is remarkably well observed in frogs, which have two pairs of these pulsating cavities. In birds, also, in addition to their two thoracic ducts terminating in the angle of the subclavian and jugular veins, their lymphatics have also direct communication with the veins of the lower extremity. We should not, however, be satisfied with any argument derived from the structure of inferior animals, in a question that is susceptible of demonstration, as this certainly should be, and when we know that in this matter, *sub judice*, the anatomists denying the communication, have formed their opinion, aided by improved methods of dissection and preparing, we cannot hesitate to reject the views of the advocates of multifarious communication.

However, though there is no doubt that the usual termination of the thoracic duct is in the angle of the jugular and subclavian veins; yet a deviation occasionally exists in the human subject, now and again presenting a plexus rather than a single vessel, and terminating in the veins by several apertures, or even sending off a branch, as in the hog, to terminate in the vena azygos.

The next question to engage our attention will be, Do the lymphatic and venous systems communicate directly in the lymphatic glands? Tiedeman and Fohmann, both great authorities, think so, and rest their opinion on the following facts: The marked contrast between the number and size of the lacteal vessels and the small caliber of the thoracic duct. The continuation of life when this duct has been obliterated. The passage of chyle into

the sanguineous system, when the principal mesenteric glands are affected by tubercular degeneration; provided that those nearest to the intestinal canal are unaffected by disease; and the absence of general or partial dropsy when the mesenteric glands are thus diseased. Again, it is stated that the venous capillaries can be injected in the glands from the different vessels. But this is denied by Cruveilhier, Carpenter and Sappey. When the injection thus pushed is seen in the veins, it is the result of a rupture which easily takes place when the gland is softened from commencing decomposition; but in every instance where the injection was made in glands fresh and free from decomposition, the efferent vessels have been filled, but not the venous capillaries.

I have now hastily glanced at some of the most important characteristics of the anatomy of the lymphatic system, not intending that any such cursory treatment of my subject should be considered as an effort at its exhaustive exposition, or more than a necessary introduction to the treatment of those morbid conditions of the lymphatic vessels and glands that remain for future consideration. Neither a wide expansion of general views nor a detailed precision of individual facts would be consistent with my aim, which has been to present to the profession those leading anatomical points that may conduce to a more accurate conception of views on the pathology and symptoms of diseases of the lymphatic system.

ARTICLE II.

THE TREATMENT OF VARICOCELE. WITH A CLINICAL REPORT OF CASES TREATED BY AMPUTATION OF THE SCROTUM. By G. FRANK LYDSTON, M.D., Late Resident Surgeon, Charity and State Emigration Hospitals, New York. Lecturer on Genito-urinary and Venereal Diseases, College of Physicians and Surgeons, Chicago, Ill

After the elaborate monograph upon the subject of varicocele, written by Henry, there would seem to be but little to add to the subject, but having been an enthusiastic advocate of the operation of amputation of the redudant scrotum, and having had the

opportunity of testing its efficacy I take pleasure in presenting some of my results and the conclusions drawn therefrom.

Varicocele, or varix, in its milder forms, at least, is not an affection which is intrinsically dangerous to life, but in nearly all well marked cases it gives rise to considerable mental annoyance, as well as a varying degree of actual physical suffering. In nearly every young man who is affected with varicocele sufficiently marked to attract his attention, a greater or less degree of mental depression and sexual hypochondriasis exist, and, indeed, serve to make life miserable, in certain instances.

The physical deformity which varix may occasion may give rise to a great annoyance if the patient be at all sensitive, as is illustrated by Case V of the present series. In the slighter cases, such palliation as may be obtained by the use of a suspensory bandage and the application of cold and electricity may suffice to render the affection tolerable, and to prevent any increase in the size of the varix, but in the more severe cases the characteristic changes in the venous walls, due mainly to their loss of tone, and to connective tissue proliferation, go on, and we have as a result increased enlargement of the spermatic plexus, with all its attendant discomfort. In such instances the suspensory bandage fails to prevent a noticeable degree of deformity, and to allay the various symptoms completely. Its failure to relieve the patient's mental condition is especially evident, for the patient in removing and re-applying his bandage is made painfully cognizant of his deformity. The knowledge that he is unlike other young men, particularly as regards his sexual apparatus, has a peculiarly demoralizing effect upon such a patient unless he is unusually indifferent.

For such cases, then, we must devise some more effectual means of relief than are afforded by the ordinary measures of palliation. The various radical operations for varicocele are, as is well known, more or less dangerous to life, and to the functional integrity of the testicle of the affected side, and we ordinarily prefer to avoid all risks, where practicable. To many surgeons the necessity of an operation for the relief of varicocele does not seem to be at all apparent, and, indeed, we must confess that the affection may be temporized with in a large number of

cases. When, however, the patient suffers from the amount of mental and physical discomfort experienced by many of the cases that present themselves to us for treatment, something should be undertaken for their relief. An additional indication for operation lies in the danger of traumatic or spontaneous rupture of the diseased venous walls and the consequent formation of hæmatocele, which is, as is well known, a serious affection when involving the scrotum.

There is a popular idea that the danger of fatal hæmorrhage in operations for varicocele is very great, and as a consequence of this, and the tendency on the part of different surgeons to temporize with the affection, or turn the case over to instrument makers to have suspensories applied, the proportion of cases presenting themselves for operative treatment is very small. That a considerable degree of actual pain may be complained of in the more advanced cases, is exemplified by several of the cases described in the present paper.

I shall make no attempt to present the literature of varicocele, but will merely mention several of the operations suggested and practiced for its relief. We have a number of operations which have been recommended for the radical cure of varix; a radical cure implying the obliteration or inflammatory occlusion of the affected veins; among the most important of which are those of Vidal de Cassis, and Mr. Henry Lee. Vidal's method is familiar to most surgeons, and consists in passing an iron pin through the scrotum so as to pass between the vas deferens and the enlarged veins. A silver wire is then passed alongside the pin, in such a manner that the veins will be included between the pin and the wire, after which the wire is made fast to the pin at each end, and the pin twisted so as to bring a certain amount of compression to bear upon the veins. This twisting is repeated every day or two, until the wire has ulcerated through the veins, after which the pin becomes loosened, and is removed. The veins are in this manner cut across, and occluded by inflammatory adhesion. Prof. T. M. Markoe has modified this operation by dispensing with the pin, and passing the silver wire in such a manner that it forms a loop, enclosing the veins, after which the ends of the loop are clamped to a lead plate upon the surface of the scrotum.

The wire is tightened from day to day, until the veins are severed, and the loop is free, when it is removed. Now, these operations, seemingly so simple and devoid of danger, are neither the one nor the other. Unless great caution be observed, hæmorrhage, with the formation of scrotal hæmatocele, may occur, from imperfect occlusion of the veins, and there is always more or less danger of exciting phlebitis. It is also by no means impossible for even surgeons of some experience to include the vas deferens in the loop of wire, an accident which will inevitably be followed by atrophy of the testicle, and may result in fatal tetanus as a result of peripheral irritation in this important structure. A case recently occurred in this city, in which a gentleman accidentally ligated the vas deferens in operating for varicocele, with the result of inducing atrophy of the testis. Atrophy of the testicle after the ligation of the spermatic veins, however, does not necessarily imply that the vas deferens has been included in the ligature, for such a result may ensue from simple interference with the nutrition of the organ consequent upon obstruction of the return circulation.

Mr. Henry Lee's operation is performed as follows: A segment of the anterior portion of the scrotum is excised, and the veins exposed, and temporarily compressed. The varicose vessels are then excised, and their cut extremities seared with the hot iron. When done antiseptically, this operation may yield excellent results, but we have still the same danger of atrophy of the testis that exists in the operations of Vidal and Markoe, although there is little danger of accidental deligation of the vas deferens, from the fact that the operation comprises exposure of the vessels instead of their ligation in the dark, if we may so express it. Now, it seems to me, that we are hardly warranted in performing operations of the nature of those described, until some safer method has been tried. In the amputation of the redundant scrotum, we have recourse to a measure which is far safer than the numerous radical operations, and, if properly performed, one which yields uniformly good results. Even in the event that in certain extreme cases we may be compelled to repeat the operation after the lapse of years, or even though the patient be compelled to wear a suspensory bandage for the remainder of his life,

we will have answered all the indications in the case, and more especially the relief of the deformity and the sexual hypochondriasis. The Astley Cooper operation; then, so long neglected, is, as modified by Henry, a perfectly practicable means of relieving varicocele, and should be performed in preference to all other operations for this purpose. The fear of hæmorrhage excited in the minds of many, says Henry, "is now set aside by the perfect success following the operation."

Now, although, in my own experience, I have met with but one case in which apprehension, or even any great degree of annoyance, has been caused by hæmorrhage, and which in this case was due to a moderately well-marked hæmorrhagic diathesis, there has been a special tendency to venous oozing in my cases, which has led me to modify the operation somewhat, to obviate the disturbance of the wound, caused by the effused fluid. In the first two cases presented in this paper, I followed the details of the Henry operation in the main, using, however, his old form of clamp. In my later operations, I have modified the dressings somewhat, and, I believe, with advantage. Instead, of simple interrupted sutures of silk, I now use chromated catgut, for the interrupted sutures, with silver pins, and the figure of 8 silk suture, at the points of extreme tension, and at intervals varying with the amount of tension present or anticipated. Sutures of interrupted silk between the pins are not objectionable, but where convenient, I prefer catgut. The number of sutures should be sufficient to accurately approximate the cut surfaces. I find the silver pins much more trustworthy in cases characterized by extreme tension—and indeed, the tension is always great if a sufficient amount of scrotal tissue be removed—than any form of suture, whether of wire, silk or catgut.*

I find that the use of adhesive plaster in the first dressing, may advantageously be dispensed with. They are, however, of great service after the sutures and pins have been removed. As a substitute, I find graduated compresses to be all-sufficient in supporting the parts. These compresses may be made of carded

* I observe that Henry has recently advocated the use of silver pins also. I had used them prior to the publication of his remarks upon their advantages, and I believe they have been frequently used by other surgeons in the old method of operating.

oakum or borated cotton. After closing the wound I wash the surfaces with a warm saturated solution of boracic acid, and dust the edges of the wound with powdered iodoform. Prior to closing the lower angle of the wound I insert a drainage-tube of decalcified bone, which substance I much prefer to rubber. The wound having been properly cleansed and the edges approximated and sprinkled with iodoform, I place a piece of lint, in which holes are cut to allow the escape of discharges, smeared with carbolized vaseline, over the part, and then cover this with a piece of protective dipped in a 1-20 solution of carbolic acid. These dressings are for the purpose of preventing those which are placed above them from adhering to the part. Over the whole is placed a quantity of borated cotton, in such a manner that compression will be exerted upon the sides of the scrotum, thus supporting the wound. The dressings are retained in place by a large square of muslin, after the fashion of a diaper, a hole being cut for the penis. When the bowels move the bandage is removed, the dressings being supported by the hand of the patient while the bed-pan is being used.

I have been led to prefer the use of a warm solution of boracic acid to the ordinary cold solutions of carbolic acid, chiefly from the view that it is a more efficient antiseptic, is less likely to produce irritation, and is almost absolutely safe as far as the liability to injurious absorption is concerned. It is also of a temperature more nearly corresponding to the normal temperature of the tissues, and consequently is less likely to depress their vitality than are cold fluids. As a matter of simplicity, the dressing of iodoform and borated cotton is preferable to Lister's dressing, and as far as my own experience goes it is equally aseptic and antiseptic, and yields as uniformly good results.

It has been my experience that those cases in which healing by granulation rather than first intention, occurs, do better in the end, from the fact that the inflammatory thickening, and cicatricial contraction, yield a firmer support for the varix. A speedy union is, however, desirable, as the patient is usually anxious to get about, and the slower the method of healing, the greater the danger of inflammatory complications.

The most important point in the performance of amputation of

the scrotum for varicocele is the amount of tissue to be removed. Henry's remarks upon this subject are so comprehensive that I take the liberty of repeating them: "Regarding the amount of scrotum to be removed, I can only say that I take away all that is not absolutely necessary to form a covering for the testicles. There is no danger of removing too much if the clamp be skillfully applied, and without skill there is more probability of a second operation being called for to remove more tissue." I can heartily endorse this statement of Henry's. I have observed that even in those cases in which the remaining portion of the scrotum is seemingly scanty at first, the tissues will soon accommodate themselves to the testes and yield all the room necessary.

I have mentioned the use of drainage tubes in the operation for varicocele, and I desire to state that from my experience in Cases I and V of this series I have been led to believe that drainage is an essential element of the operation, being indicated by the tendency to extreme tension from imprisoned blood. The primary hæmorrhage in these cases is usually slight, on account of the pressure of the clamp, but after this is removed and the wound has been closed there is a tendency to passive oozing of blood and serum, which may accumulate in considerable quantity, and even cause separation of the edges or giving way of the sutures. In Cases II, III and IV drainage tubes were used for forty-eight hours with the best results, union by first intention occurring, thus offering a marked contrast to those cases in which drainage tubes were not used. The same laxity or lack of tone of the vascular walls, which predisposes to varicocele principally, gives rise to the passive oozing which causes the trouble in such cases.

This oozing is perhaps rarely if ever dangerous to life, but I think that it constitutes an important complication of the operation and one which should be guarded against. The drainage tube not only prevents the accumulation of blood, but it facilitates the application of styptics in case hæmorrhage should be excessive.

CASE I.—J. W., German, age 28; occupation, driver. This patient stated that he had been addicted to masturbation to an extreme degree until 22 years of age, at which time he married.

After marriage masturbation was substituted by sexual excesses. An enlargement of the left side of the scrotum was noticed at about the age of 20, and the patient was told at that time that he had a varicocele. During the last few years marked increase of the scrotal tumor had been evident, and a suspensory bandage had been worn for about a year. On admission to the hospital, the patient stated that his sexual powers were fast decreasing—probably as a consequence of mental depression as much as anything—and it was for this trouble chiefly that he applied for relief. Henry's modification of the Astley Cooper operation was performed, with, however, an old-style clamp. No drainage tubes were inserted, and the wound was closed partly with silk, and partly with silver wire. Secondary hæmorrhage occurred on the same day and was followed by some sloughing at the lower angle of the wound. Healing of this portion of the wound occurred quite rapidly, by granulation, the upper part uniting by first intention, and the wound being perfectly healed by twentieth day, at which time the patient was discharged. When last heard from, one year after the operation, he expressed himself as well pleased with the result of the operation, and entirely relieved of his symptoms.

CASE II.—Also a hospital case; a Bohemian about 23 or 24 years of age, and unable to speak English or German, and consequently to give any history of his trouble. The patient was debilitated, and appeared to suffer considerable annoyance from his varix, complaining of pain in the back and the affected testicle, as nearly as could be made out. The varicocele was very large, and involved the left spermatic plexus. The scrotal veins were greatly enlarged and varicose. After the administration of tonics and a nourishing diet for several weeks, the scrotum was amputated, as in the preceding case. There was very little hæmorrhage attendant upon the operation, and no secondary oozing of any consequence, but unfortunately, through carelessness of the nurse, erysipelas was set up in the wound on the third day, which resulted in considerable sloughing of the scrotal tissues, and prolonged healing for five weeks. At the end of this time, however, union was perfect. The result was all that could be desired, and the patient left the hospital in an apparently con-

tented frame of mind. The subsequent history of this case, like the majority of hospital cases, could not be learned.

CASE III.—W. F., age 30; occupation, clerk. This gentleman stated that he had always been rather feeble, although enjoying fair health. Both masturbation and sexual excesses were acknowledged. Enlargement of the left side of the scrotum began to be noticeable at about the age of 18, and has since greatly increased, but had never been examined prior to his consulting me. By the advice of a friend he began wearing a suspensory bandage some years ago, and has used one more or less constantly ever since. Three years before I saw the case syphilis was contracted, and it was for its tertiary manifestations that I was consulted. On examination syphilitic nodes over both tibæ were found, and a history of the ordinary course of secondary syphilis was elicited. Severe osteocopic pains at night were complained of chiefly, and in addition great pain and discomfort from the varicocele were prominent sources of annoyance. A moderate varix of the right side was present, an occurrence not very frequently seen. Under the mixed treatment and a generous diet the condition of the patient rapidly improved, so that in four weeks I felt warranted in operating for the varicocele. In this case I modified the operation somewhat. Carbolyzed cat-gut was used instead of silk, and a drainage tube of decalcified bone inserted. As an additional support, four silver pins with the figure of 8 suture were inserted at the points of greatest tension. The wound was dressed with borated cotton and iodoform. Considerable venous oozing occurred in this case, but it was quite readily conducted away by the drainage tube, and produced no trouble whatever. Union by first intention was perfect throughout, and the drainage tube and pins were removed on the second and fourth days respectively, the sutures being allowed to soften and come away spontaneously. On the tenth day the patient was given a suspensory bandage, and allowed to go about and attend to his business. When last heard from (one year after the operation) he had dispensed with the suspensory bandage, and was feeling perfectly well. Small doses of hydrarg. had been taken meanwhile, and there had been no return of his syphilis.

CASE IV.—F. S., age 28; occupation, book-keeper. This pa-

tient stated that he had always been somewhat delicate, but had had little real sickness. Had never masturbated to any extent, nor been addicted to sexual excesses. Enlargement of the left side of the scrotum began at about the age of 21. Had had no treatment, nor had anything been done save the application of a rather rudely constructed suspensory bandage. On examination, a varix of moderate size was observed, and also a moderate varicosity of the veins of the extremities. The patient appears well in other respects, although evidently of not very robust physique, and seeks relief for so-called "spermatorrhœa," which, upon investigation, proved to consist of a nocturnal emission occurring once a fortnight. Considerable mental depression, with pain in the back, and testis were also complained of, the sense of painful, dragging weight upon the spermatic cord being especially annoying. The same operation was performed as in Case III., chromated gut, however, being substituted for the ordinary carbolized, and a hot saturated solution of boracic acid being used to wash the wounded surfaces. Five silver pins were inserted, and the iodoform and borated cotton dressing applied. Union was perfect throughout by first intention, the pins being removed on the third day. On the eleventh day a suspensory bandage was applied, and the patient allowed to resume business. Thirteen months after the operation this patient remained perfectly well, although by my advice he still wore a suspensory bandage.

CASE V.—W. H., age 21 ; occupation, amanuensis. This patient was always delicate, and is of a lymphatic temperament, although he has, as a rule, enjoyed comparatively good health. Has always been of a somewhat hæmorrhagic diathesis, and had consequent apprehension of hæmorrhage from an operation. About three years prior to his consulting me (August '81) this gentleman noticed an enlargement of the left side of the scrotum, from which, however, little trouble was experienced, save from mental disquiet, due to the knowledge of his deformity, until about a year ago, when he began to be annoyed by pain in the back and testis, sometimes radiating into the inner aspect of left thigh. These disturbances had gradually increased up to the date mentioned. When I examined this patient he stated that nothing had been done for the trouble, and that he was suffering

quite severely from neuralgic pains in back, spermatic cord, and thighs, with a sense of dragging, increased on movement. Marked sexual hypochondriasis, with frequent nocturnal pollutions, were also prominent features of the case at this time. Neuralgia of the vesical neck, with frequent calls to urinate, also gave rise to great annoyance. The principal complaint on the part of this gentleman was that the deformity was very conspicuous, and it was mainly for this that he desired treatment. As his circumstances were not favorable to an operation, I followed a simple course of palliation, pending such a time as he should select for its performance. The nocturnal emissions and vesical neuralgia yielded readily to the cold sound. By these means and the application of a suspensory the patient was so far relieved that he deferred the operation for more than a year, but in March of present year decided to have it performed. I was unable to secure or prepare the chromic gut in this instance, and hence used carbolyzed silk. For the same reason drainage tubes were omitted. I found it necessary to remove a large segment of the scrotum, the varix being the largest I have ever seen. Five silver pins were inserted, and the boracic acid, borated cotton and iodoform dressing applied as usual. Venous oozing was not profuse, on account of the pressure of the clamp, during the operation. Union by first intention occurred throughout, but on the third day great pain and tension about the wound was experienced, and the lower portion of the wound was separated by clots contained in the scrotal cavity. On opening up the wound and removing the lower sutures and pins, I found a large amount of coagula—at least several ounces—and on turning these out quite a cavity was exposed. Venous oozing persisted for a week, when it ceased, and healthy granulations appeared. Healing was now quite rapid, and in a few days the wound was entirely closed, leaving an excellent result. The scrotum, at first rather tight, soon accommodated itself to the testes, and no trouble from this source was experienced. The relief afforded by the operation has been very marked, both mental and physical improvement being evident. The patient was attending to business on the twentieth day, and had drainage tubes been used this period might have been reduced one-half.

To secure a successful result from the operation of amputation of the redundant scrotum for varicocele, various general and local measures are indicated after the wound has healed, and these points are too often neglected. The most important point is the continuous wearing of a suspensory bandage for several years, or in certain instances, for life. This bandage should not only support, but should compress the parts, a large or ill-fitting bandage being useless. The patient should take a sponge bath daily, and should keep the bowels freely open, for, as is well known, the pressure of a distended colon upon the left spermatic vein has an important influence in the causation of varicocele. Daily applications of cold salt and water, and the Faradaic current, are useful. Internally, the mineral tonics, strychnia and ergot, should be given. These various measures tend, after a time, to restore the normal tone and resiliency of the venous walls, to a certain extent, and prevent a recurrence of the varicocele.

125 State St., Chicago, May 1, 1883.

ARTICLE III.

CEREBRAL HYPERÆMIA. By J. M. G. CARTER, A.M., M.D.
Waukegan, Illinois.

The increased flow of blood to the brain, commonly called cerebral hyperæmia, or congestion of the brain, is a condition of very frequent occurrence, and the cause of much physical and mental suffering. It exhibits numerous forms, and depends upon a variety of causes.

Many varieties of cerebral congestion have been described, and elaborate classifications made, but in practice they are usually grouped under two heads—acute and chronic. Congestion may occur in various degrees of intensity, from a slight increase above the normal cerebral circulation to such an influx of blood to the brain as will entirely destroy its functions. In whatever degree of severity the attack is made, if the onset is sudden and of short duration it is acute. If, on the other hand, the morbid process is slow in its progress and the disease of long continuance, the

case is chronic. It is evident that the chronic variety may result from the acute, and the acute may supervene upon the chronic. In the chronic form the impairment of cell function is more gradual, stupor is more characteristic, and there is a greater amount of extravasation from minute vessels. In the acute form there is greater tendency to rupture of vessels and sudden loss of consciousness. The following cases from private practice illustrate these forms, and show the usual course and symptoms of the disease :

J. C., æt. 26, was a close student and a hard worker, by profession a teacher. About the middle of May, 1872, he first felt a pain in the right superior frontal region, which interfered materially with mental application, or close attention to any subject or work. Every day toward the close of his work there was a heavy, uneasy sensation of fullness in the head, not unfrequently attended with pain. Occasionally he was annoyed by muscular twitchings of the eyelids, specks floating before the eyes, ringing in the ears, vertigo, and the like. These symptoms continued until the close of his school in the latter part of June. The sensations of tightness, like a band surrounding the head, dread of some impending evil, delusions and hallucinations, so often present in this variety, were not present, or, if so, in so slight degree as not to be noticed.

By the close of his school the symptoms were more marked. The pain was sharper than at first, and occurred more frequently during the day. His sleep was generally good after the first hour or two, and sometimes there seemed to be no insomnia even during the first hour after retiring.

When the pain was most severe the blood-vessels about the neck and head were distended and throbbing, and this always occurred during or after close mental application.

A short rest from his studies greatly relieved his troubles. Soon, however, he felt that it was necessary for him to resume his labors. No sooner had he commenced his work than there was a return of the disturbance of the cerebral circulation—pain, dizziness, full carotids, and “nervousness.” These symptoms increased, until the first of October he was almost prostrated, notwithstanding his excellent appetite and care about physical

exercise. He was compelled to desist from both mental and physical labor, or exertion of any kind, not being able to do more than take very simple recreation, on account of the disturbance of the cerebral circulation which it invariably caused. He consulted a physician. For four months his condition remained unimproved. He was taking phosphorus during the entire time, and once or twice applied a Spanish-fly blister to the nape of the neck. He was unable to read more than five or ten minutes at a time without bringing on severe pain in the head, and physical exertion, as sawing wood, was just as sure to produce pain.

Finally, in February, 1873, the patient thought it advisable to secure the services of another physician. The trouble was diagnosed chronic congestion of the brain, with an atonic condition of the cerebral vessels. Rest, nourishing food, moderate out-door exercise were enjoined; and the pyrophosphate of iron with calisaya bark was prescribed as a tonic.

In four weeks the patient's condition was so much improved that, with the consent of his physician, he returned to teaching. By continued use of the tonic he was able to do the work of the schoolroom; but it was some four years before he was able to perform the amount of intellectual labor that he was accustomed to do before the commencement of his trouble in May, 1872.

T. S. W., æt. seventy-two, a Scotchman, of robust constitution; by occupation a farmer; temperate and of regular habits. In February, 1883, was thrown from a wagon, but not seriously injured. After that accident his family noticed that he was more irritable, sometimes peevish and fretful. His decisions were not so pronounced, and perhaps would be reversed several times before he settled on a line of action. He did not feel as well as before, and gradually discovered that he was not able to work as formerly. He had a terrible dread of impending financial disaster, notwithstanding he had a good farm and was surrounded by plenty.

About the 1st of July his symptoms were perceptibly worse, and he was disturbed by dizzy spells. July 8, while hoeing in the field he was suddenly seized with dizziness and fell forward to the ground. With some difficulty he got up and went to the house. Next day there was a recurrence of the trouble, and he

had greater difficulty in getting up. Having been sent for to see another member of the family, the physician was consulted in regard to Mr. W.

At that time, July 10, his pulse was slow—56—and full. There was a constant pain in the right superior frontal region, which occasionally extended across to the left side of the head. The bowels, which had been loose, were costive, and the tongue was coated. The carotids were distended, and the eyes somewhat congested, especially the retina.

Here was evidently a case of chronic congestion of the brain, with an impending acute attack. Rest, quiet, arterial sedatives, bromides and cold to the head were prescribed, and an engagement left for next day.

July 11. Found that he had been out; had fallen and was unable to get up without help. The pulse 54; pupils contracted; intellect somewhat dull; sensibilities obtunded; bowels moving freely from action of purgatives. Second visit: Pulse 60; other symptoms the same, but patient more restless. Chloral and ergot added to treatment.

July 12, first visit: Pulse 60; temperature normal; pupils contracted; patient restless and somewhat delirious; bowels constipated; appetite gone; motion on right side impaired. Second visit: Symptoms aggravated; pulse 80; temperature 101°; right side paralyzed, bowels constipated; pupils not changed.

July 13. Symptoms aggravated; patient unconscious; bowels had moved several times; breathing heavy; patient very restless; urine high-colored and scanty.

July 14. Patient in about the same condition as yesterday. Second visit: Pulse variable; urine passed involuntarily, high-colored and scanty.

July 15. Aroused with difficulty; great difficulty in swallowing; food ordered by enemata; pulse variable, ranging from 60 to 85; temperature about 101°; pupils variable, but generally small, yet affected by the action of light. Second visit: More easily aroused; coma deepening, except when wakened.

July 16. Aroused, and called the family, recognizing each member: pulse more regular at 80; food taken through stomach; between the lucid intervals the breathing was very heavy, almost

stertorous ; the heavy coating which had covered the tongue had disappeared, leaving the surface moist and clean. Second visit : No particular change ; patient apparently better ; urine more abundant, but high-colored.

July 17. Patient was restless through last night ; swallowing more difficult ; not so many lucid intervals ; other symptoms about the same. Second visit : Coma deepening.

July 18. Patient restless and unconscious ; took very little food ; pulse variable and weak ; temperature variable, not reaching more than 102° ; tongue drops into back of mouth as if paralyzed ; patient turned on one side to facilitate breathing ; coma becoming deeper and respirations more shallow.

Second visit—Deep coma ; pulse variable and weak, ranging between 85 and 100 ; temperature unchanged ; pupils contracted, yielding less to the influence of light ; has taken no nourishment and cannot swallow ; sinking rapidly ; July 19, died at 2:15 A. M.

The face was not affected by paralysis, and when the tongue was protruded it did not deviate to either side. The muscles of the tongue seemed to be slightly involved as a whole, as it was with difficulty that the patient protruded it, and his speech during his lucid moments was difficult and his syllables were slurred, and a sort of thickness was noticeable in his pronunciation. The paralysis on the right side was total as regarded motion, and partial as regarded sensation. This is what Dr. Hammond calls the *apoplectic form*. It is so denominated in Reynold's System of Medicine, and by other authors. This form is most common in advanced life, and is generally fatal.

P. D., æt. 25, a robust farmer ; had been working in the sun during the forenoon, and in the afternoon rode to town. The effect of the heat made him dizzy, and hoping to feel better, he took a glass of beer. Soon he went into the sun again, was seized with a feeling of dizziness and fell unconscious. Medical aid was called immediately.

The pulse was 60, temperature normal, head hot, and patient unconscious. At first there were suspicions that it was a case of intoxication, but careful examination of the symptoms and history showed it to be a case of acute congestion of the brain pro-

duced by the combined effect of the heat and beer. The free use of arterial sedatives and cold applied to the head restored consciousness, and in two days the patient was quite well.

It is important to know that many school children suffer from cerebral hyperæmia. It is also true that many children and parents complain of the over-taxing work assigned at school, when in fact the trouble is due to dissipation, late hours, novel reading, and the like, and is not at all due to excess of school work. Nevertheless, there are many cases of this malady among the children of our public schools.

A. G. was a healthy, rosy-cheeked girl of twelve years. She was in a class of boys and girls from fourteen to sixteen years of age, and being very ambitious, she studied very hard that she might excel. She soon became the subject of headaches, which increased in severity and frequency of recurrence. They were accompanied by flushing of the face, full carotids, redness of the eyes, and a sensation of fullness or tightness in the head. They did not trouble her on rest or holidays, but finally invariably followed close mental application. At times she was troubled with wakefulness; her appetite became capricious, and it became necessary to take her away from school. Rest, nourishing food, and moderate exercise restored her to health.

Any close mental application may bring on cerebral congestion. Drinking spirituous liquors, the use of certain drugs, especially opium, and the excessive use of tea and coffee, may lead to the same result. Extremes of heat and cold, malaria, renal, cardiac and other diseases predispose to this malady.

To understand the action of these ætiological agents, and to grasp the pathology of this disease, it is necessary to examine some points in the physiology of cerebral circulation under normal circumstances. About one-fifth of all the blood in the body passes through the brain at each cycle of the circulation. Hence when the heart's action is increased in rapidity the brain receives in a given time an increased quantity of blood.

Now, considering the small size of the brain and the delicate structure of its tissues, it is evident that an increase in the heart's action must throw a relatively enormous amount of blood into the encephalon. The blood passes to the brain with greater

velocity than it does to the rest of the body ; for, in accordance with the principles of mechanics, *fluids driven with the same force of compulsion* will flow more rapidly through small tubes (above capillary size) than through tubes of large caliber. Dr. Fleury has shown that in conformity to this law, with the aid of the power of vital contraction and the natural lubrication of the vessels, the blood in the carotids flows with greater velocity than it does in the aërta. (*Du Dynamisme Comparé des Hémisphères Cerebraux chez L'Homme.*) He also shows that there is a greater quantity of blood going to the left hemisphere than to the right. This depends partly upon the law just given and partly upon the anatomy of the parts. As the brachio-cephalic, or innominate artery rises from the arch of the aërta, it inclines toward the right. Hence, when the current of blood from the heart arrives at this point, that portion which passes into the innominate artery must turn somewhat backward ; and the result is that a smaller current enters this vessel than would if it arose from the arch inclining to the left of the linear axis of the body. Again, the current evidently strikes upon the left or internal wall of the vessel, and must be deflected toward the right, and the effect of this is to allow a smaller quantity of blood to pass into the common carotid than would pass into that vessel if the channel were straight, the whole amount being less than half what enters the brachio-cephalic.

The left common carotid is half as large as the innominate but at its origin from the arch of the aërta it inclines toward the left, so that it receives more than half as much blood as passes into the innominate artery. In accordance with the mechanical law before stated, the velocity of the blood current in the left carotid is greater than that in the innominate, and likewise it is greater than the velocity of the current in the right carotid. Thus it is readily seen that there is a greater quantity of blood passing to the left hemisphere of the brain than to the right. In this fact we have not only the reason for the superiority of the left hemisphere over the right in functional activity, but an explanation also of the greater frequency of hæmorrhage into the left side of the brain. Reference to these anatomical and physiological facts leads to a rational explanation of the paralytic

phenomena occurring on the right side, accompanying cerebral congestion so frequently. Any cause which increases the flow of blood to the brain necessarily produces greater disturbance on the left side of that organ; for, as the actual amount of blood received is greater than that received by the right hemisphere, the structures of the left hemisphere must be subject to greater blood pressure in congestion than the opposite side, and of course the tendency to rupture is greater. There is likewise greater danger of aneurism, or softening from pressure. Remembering, then, the fact of the crossing of the motor nerves in the medulla oblongata, the oft repeated question, "Why does paralysis most frequently occur on the right side?" is easily answered.

After the blood reaches the brain it passes into extremely small and delicate capillaries. Here any slight influences may interfere with the circulation in the encephalon.

An increase in the amount of blood in the brain may depend upon one or more of at least five causes—gravitation, obstruction, mental activity, physical activity, and vaso-motor paralysis.

If the hyperæmia depend upon either of the first two, it will be arterial; and if it depend upon the last, it may be either venous or arterial, or both.

Congestions produced by the stooping position, as in certain occupations, are due to gravitation. Tumors in the course of veins returning blood from the head, and other similar influences, act as obstructions to the venous flow of the blood, and produce venous congestion. Any activity, whether mental or physical, increases the flow of arterial blood to the brain, and when excessive, produces congestion.

The vaso-motor nervous system is that system of nerves and ganglia whose chief function, so far as known, is to control the caliber of the blood-vessels. Stimulation of these nerves produces contraction of the vessels, and paralysis produces dilatation. Drugs, like alcohol or opium, paralyze the vaso-motor nerves, and as a consequence produce dilatation of the vessels.

Whichever of the five causes named is the means of producing a congestion, the effects are the same. The first result, if the cause acts to excess, is distension of the vascular walls. The distension produces pain by pressure. A continuation of the

cause tends to induce an atonic condition of the vessels by paralyzing the vaso-motor nerves, or destroying the normal tonicity of the vascular walls. This is the condition usually present in cases of chronic cerebral hyperæmia.

When the blood is most abundant in the brain, the mental processes are most active, and this causes wakefulness and increased power of imagination. But when the brain is most active, waste is also most active, and there is need of more rapid repair. If waste exceed repair, there will result both atrophy of the part affected, and functional inactivity. Softening of the brain tissue is a frequent result. According to the mechanical law given above, if the vessels become dilated, the blood current is retarded in its flow; and Traube has found in the retardation of the blood current a source of sclerosis of the arteries. The white corpuscles, he says, remaining adherent to the lining membrane of the vessels, become changed into connective tissue, and finally undergo fatty degeneration or calcification. (Karl Hertzka, *Journal of Nervous and Mental Disease*, July, 1875.) The atheromatous process which follows this retardation may extend into the smallest cerebral arteries, and result in miliary aneurisms. In this way may be caused the pareses and paralyses which frequently result in cases of chronic cerebral congestion.

Furthermore, by continued distension of the capillaries, the perivascular spaces become filled out, and this prevents the circulation of the finest lymphatic vessels. This interstitial fluid expands other spaces, especially connective tissue cells. These cells enlarge and undergo a division of the nuclei, and the proliferation results in sclerosis of the brain. (Ibid.)

I have no doubt that this is the correct explanation of many of the cases of "nervousness" and "shaking palsy" in patients who have overworked, or who have been addicted to the use of alcoholic drinks or other intoxicating drugs.

The malarial poison increases the susceptibility of the various tissues of the body. This renders the organs more easily affected by an increased flow of blood, and more easily exhausted by overwork. In view of the fact that visceral congestions generally attend malaria, it may be concluded that the vaso-motor system is affected, and may be paralyzed, by this poison. There is no

reason why the persistent action of this agent may not produce congestion of the brain as well as of the liver, or any other organ; especially if the brain be subjected to as much abuse as the digestive apparatus; nor does it matter whether the poison is a blood destroyer or vaso-motor depressor.

The prolonged action of the malarial poison, like the prolonged action of the other causes of congestion, can only result in chronic cerebral hyperæmia. Such is the case with old whisky-drinkers and opium-eaters.

The pathological condition resulting from the use of particular drugs must be due to vaso-motor paralysis or to an increased action of the heart. These influences, continued for months or years, can only terminate in chronic congestion of the brain. The condition itself is first distension, then pressure upon the brain tissue, and at last sclerosis; or the vessels are dilated, tonicity is lost, retardation of the blood current follows, the atheromatous process sets in, and aneurism or rupture may result, accompanied by pariesis or paralysis, and, perhaps, ending in softening of the brain and death.

Köser has shown that the blood of overworked or hunted-down animals is poisonous, rendering the flesh of such animals destructive to life. The same must be true, to a certain extent, of the blood of overworked men. Such blood cannot be proper food for the tissues, and particularly such tissues as the brain. This may be another influence to hasten the atheromatous process in the cerebral vessels. A great deal might be said concerning the treatment of this malady, but a few words must suffice here, as the text-books are sufficiently explicit on that point.

For an acute cerebral congestion the indication is to cool the head and diminish the quantity of blood in the distended vessels. Cold should be applied to the head in the form of ice or very cold water. Ergot and bromides diminish the caliber of the blood vessels, and hence reduce the quantity of blood in the brain. Arterial sedatives control the action of the heart, and prevent the flow of so much blood into the cranial cavity as would otherwise reach it.

In the chronic form, where the vessels have lost their tone, iron, strychnia and phosphorus will meet the indication. If iron

cannot be borne, arsenic may be substituted for it. Where malaria has had anything to do with the case, iron and quinine, or arsenic and quinine, are indicated. Where neither iron nor arsenic can be borne it may be advisable to use zinc. If an anodyne is needed, chloral hydrate should be used. In the chronic form, moderate exercise, nourishing food, and bathings are necessary.

ARTICLE IV.

INTESTINAL OBSTRUCTION FROM AN ABSCESS BEHIND THE POSTERIOR LAYER OF THE PERITONÆUM—ABDOMINAL SECTION—RECOVERY. By CHARLES T. PARKES, M.D., Professor of Anatomy, etc., Rush Medical College.

The patient, Isaac Meier, aged 21, a clerk by occupation, had never been previously ill. He called at Dr. Stanley's office on the morning of July 11, complaining of pain all over the abdomen, and some nausea. Upon examination, the doctor found the abdomen greatly tympanitic, and regular in contour. There was slight pain on pressure, and the tongue was coated. Temperature 100°. pulse 85. Gave him a pill containing oxalate of cerium, ext. belladonna and carbonate of bismuth. Ordered him to take injections every two hours until he had a passage from the bowels.

The patient had already taken Seidlitz powders without any relief from his constipation or distress. In the evening he sent for Dr. Stanley, who found him in great pain. The injections had had no effect, and the doctor, thinking they had been improperly given, administered a large one, and this also came away without being of any avail. Gave one-fifth of a grain of morphia sulph. hypodermically. The next morning the patient was about the house, feeling much easier; had no movement of the bowels. Again sent for Dr. Stanley in the evening, who found the symptoms the same. Ordered a powder of jalapa and calomel $\bar{a}\bar{a}$ gr. viii, to be followed in three hours $\frac{1}{4}$ gr. morphia sulph., if no pain. Called next day. Found no change in symptoms. Bowels unmoved. Requested a consultation, which

was granted. After consultation with Dr. Marguerat, the patient was given one drop of croton oil, to be repeated in two hours if the first dose was ineffectual. Morphia to be continued at proper intervals, if suffering pain. The patient continued about the same until the Monday following—six days from the first appearance of his trouble, when he began to vomit stercoraceous matter rather freely and quite often.

The temperature and pulse varied very little from their condition when the patient was first seen until to-day, when the temperature was $97\frac{1}{2}^{\circ}$ and pulse 106 and very feeble. Advised his removal to a hospital.

Dr. Stanley has very kindly furnished me the above history of this interesting case previous to the time when the man was placed in my charge July 17, 1883. I found him with a very rapid and feeble pulse—130, and with a temperature of 100° . The body is bathed with a cold perspiration. There is present a constant hiccupping and occasional vomiting of a very foul-smelling stercoraceous matter. The abdomen is slightly tender all over, upon palpation, and is only moderately distended. Cannot find any positive evidence of tumor or other sign indicating the point of obstruction, except that the percussion note is not as distinct over the right iliac region as elsewhere. No hernia present.

Having no history of the case at hand, and the patient being too ill to give any, of the commencement and progress of the trouble so far, nor what had been done for him, it was determined to delay any active interference until these points could be ascertained. Meantime, $\frac{1}{2}$ of a grain of morphia sulph. was administered hypodermically. The patient was placed in the knee-elbow position, and a large enema of soapsuds was given by hydrostatic pressure. The water was allowed to pass into the bowel until the patient complained of considerable pain. The enema, about three pints in quantity, soon passed away free from fecal matter or odor, and was unaccompanied with flatus. The diagnosis made was intestinal obstruction, whether intussusception or volvulus undetermined. The patient was told that, in all probability, nothing but abdominal section would enable the obstruction to be relieved. He consented to have the operation performed as soon

as his friends were acquainted with the circumstances. They could not be seen before the next morning, July 18. This arrangement was agreed to, partially to gratify this natural wish of the patient, and mainly to try the effects of complete narcotism, together with a repetition of the enema. The evening condition of July 17 was practically the same as that found at the morning examination. The morphia had subdued the pain and partially controlled the hiccoughing, but there was still occasional regurgitation of faecal matter; it could scarcely be called vomiting. The enemata, given as before, had produced no result, and came away unstained. The pulse was quieter. Morphia hypodermically was ordered to be continued as indications required. The large enemata were discontinued, and small ones, of milk $\mathfrak{z}$ i and whiskey $\mathfrak{z}$ i, given for nourishment; these were retained.

Wednesday, 10 A. M., found the patient evidently worse and failing rapidly, and the friends consenting, operative interference was determined upon.

At 4 P. M. the patient was anæsthetized, Prof. Gunn, and Drs. Reynolds, MacNeil, Stanley and Hanson being present.

An incision four inches long, between the umbilicus and pubes, directly along the linea alba, was carried through the abdominal walls and the peritoneal cavity opened. The intestines first showing in the wound were moderately distended and dark in color. These were pushed aside, and a collapsed fold thereof found low down toward the pelvis. While following this toward the ileo-cæcal junction, my finger, with slight pressure, went through a thin wall into a cavity, out of which immediately welled up, into the peritoneal cavity, among and around the intestines, and flowed out of the abdominal incision, an immense quantity of horribly offensive and greenish colored pus. The finger was kept in the opening it had produced, and the abscess cavity thoroughly explored. It was behind the posterior layer of the peritonæum, and extended as high as the body of the third lumbar vertebra, and as low as the brim of the pelvis, and into the right iliac fossa half the distance of its width. No faecal matter nor any other foreign bodies were found in it. When full and distended, the abscess may have caused an acute bend of the ileum, by pressure, just where the small intestine joins the large, sufficient to

obliterate the canal of the former. The intestines showed but very little sign of inflammation; were not matted together, and there was no evidence of perforation or inflammation of the appendix vermiformis. In fact, no cause for the obstruction to the intestines other than the abscess was found, after full and complete search.

The opening into the abscess was enlarged with the finger, a rubber tube introduced into it and held in contact with its deepest part. The other end of the tube was attached to a spout in the bottom of a bucket filled with warm water. The bucket was held about two feet above the patient's body, and the cavity of the abscess washed out in all its recesses. The washing was continued until the returning water was perfectly clear. The same plan was pursued in cleansing the peritoneal cavity, fully two gallons of water being used. A soft rubber drainage tube, of large size, was carried to the bottom of the abscess and fastened in the lower angle of the abdominal wound, and this was closed with ten silk sutures. The wound of incision was dressed dry with iodoform and borated cotton, over this some layers of carbolized gauze and a wide bandage, and patient was carried to bed and placed so as to lie with the wound dependent, in order to favor drainage. Instructions were given when he recovered from the anæsthetic to have him maintain that position.

The patient showed evidence of considerable shock, but soon rallied nicely by means of artificial heat and a few hypodermics of whisky. The anæsthetic—ether—acted very kindly, and the patient never vomited subsequent to its administration.

8 P.M.—The patient found entirely free from pain. Reaction established. Pulse 120. Temperature 100°. Given $\frac{1}{4}$ gr. morphia sulph. hyprodermically.

8 A.M. July 19.—The patient has passed a very comfortable night; has no pain; has no vomiting; no hiccoughing. Abdomen not tender. Pulse 100. Temperature 101°. No movement of the bowels.

8 P.M.—Pulse 100. Temperature 101 $\frac{1}{2}$ °. The patient is restless, but has no special pain; no vomiting. The dressings are wet with discharge; were changed. The patient has pulled out the drainage tube. He will not give any reason for doing this.

Tried to reintroduce it but failed to do so. The discharge is free in quantity, colorless and odorless. The abdomen is undistended and free from tenderness. The wound does not look well—a reddish hue along the whole length of it. Dressings reapplied as before. A hypodermic injection of morphia sulph., gr. $\frac{1}{4}$, atropia sulph., gr. $\frac{1}{100}$, was given. Has taken milk during the day, retained it and asks for more. Milk to be given in small quantities. Has passed wind per rectum several times during the day.

During the night—4 A.M. July 20th—the patient became delirious, escaped from his attendants, got out of the window, climbed a high fence and went to a neighbor's house, where he was found and brought back to his bed.

At 8 A.M. I found him rational and resting quietly. The dressings were all disarranged and had to be removed. Several stitches at the lower part of the wound have been pulled out, probably by the patient's movements during his escapade. The deeper part of the wound seems well united. No union of the integument. The edges look red and angry. They were supported by strips of rubber plaster. Again tried to introduce the drainage tube but failed. There is but little discharge from the wound. The dressing reapplied.

8 P.M.—Patient's bowels have moved of their own accord this afternoon. No pain. No tenderness. Perfectly rational. Pulse 80. Temperature 99°. No medicine to be given. Continue nourishment.

From this time on the patient progressed rapidly toward recovery. The bowels acted freely and well every day of their own accord. Appetite returned and temperature and pulse became normal.

At the end of a week all stitches were removed from the wound. The lower half gaped widely open. The deeper structures, seemingly, are well united. The muscular tissue is partly exposed. I introduced two sutures some distance away from the edges of the wound and brought it together by tying them over a quill. This plan answered admirably, and healing by granulation progressed rapidly. At the end of the third week—August 7—the patient was discharged well. H.

has called at my office twice since his discharge, and has returned to his employment.

Remarks.—One point in this case seems somewhat noticeable, namely, the absence of any extreme rise of temperature or rapidity of pulse, notwithstanding, there was complete obstruction of the intestines for eight days, with attending tympany and peritoneal inflammation. Still, in my experience even severer trouble with the intestinal tube, is not always accompanied with any remarkable change in these signs of constitutional impression. In one case, coming to mind, where post mortem showed gangrene of several inches of the intestine, neither the temperature nor pulse reached 100.

Other signs than abnormal variation of temperature and pulse must furnish the warrant for surgical interference—these alone do not supply trustworthy indications as to the degree of local difficulty.

Judging from this instance, the presence of pus in the peritoneal cavity is not of itself deleterious. Worse smelling or more offensive pus never came out of an abscess than here bathed the intestines and spread all through the cavity. Still, no further inflammation was lighted up, and that already existing quickly subsided. True, as far as it was possible to estimate, every drop of it was washed out of the cavity and from the surface of the intestines by a good force of warm water and in good quantity. The case certainly supports Mr. Lawson Tait in his advice and practice, to perform abdominal section and wash out the cavity in all cases where accumulation of pus is suspected, no matter what the source or cause.

The difficulty attending the determination of the cause of intestinal obstruction, previous to abdominal section, is recognized by all surgeons, and is used, in part, as an argument against the operation by most surgical writers. Omniscience alone could have guessed the cause of the obstruction in this case. Pain, vomiting and hiccoughing were relieved immediately by the evacuation of the abscess, and never returned. The passage of wind from the bowel a few hours after the operation, suggested the restoration of patulency to the intestinal tube, and the free discharge of fecal matter inside of thirty-six hours, made the

suggestion a reality. I suspect that the slight attack of delirium after the re-dressing of the wound was caused by the absorption of iodoform.

Quite a number of cases of intestinal obstruction seen in my own practice, as well as in the hands of other medical men, which have rapidly passed on to death under the ordinary methods of treating them, have for some time convinced me, that no case of this kind ought ever to be allowed to go without the chance of recovery after abdominal section. Many cases may die even with its reasonable help, but I am quite as sure, many lives would be saved by the adoption of a rule to operate.

ARTICLE V.

THREE CASES OF EXCISION OF THE HIP JOINT. By Jno. E. Owens, M.D., Prof. of Surg. Anat. and Operative Surgery, Chicago Medical College. Reported by Frank L. Rea, M.D., late Interne St. Luke's Hospital.

In the spring of 1882, Prof. Owens gave a course of surgical clinics in St. Luke's Hospital to the gentlemen of the practitioners' course of the Chicago Medical College. At each of the first three of these regular Monday afternoon clinics, which are continued through the college year, he excised the hip joint for hip disease. The patients were all natives of Illinois, one living in this city and the two others in the country. Neither had ever enjoyed but fair general health. The patients were, S—K—, a female aged ten years, an orphan, with a moderately marked phthisical hereditary history. She had been suffering from hip-joint disease two and one-half years, all treatment having been neglected.

F—Y—; was six years of age, and in addition to the hip disease had Pott's disease high in the dorsal region. His father was subject to attacks of hæmoptysis; mother healthy, and sister myopic and more or less strumous. This case seemed to present such difficulties of diagnosis that the hip disease was not made out with certainty until the joint suppurated. It was

recognized when he applied for admission to the hospital, and the abscess communicating with the joint was opened. Up to the entrance into the institution it had progressed six months. The disease was not recognized in this case at a time when conservative measures were of utility.

L—— K——; of healthy Irish parentage—the youngest of a large family of healthy children, was aged five years. He had been suffering from hip disease for two (2) years. Orthopædic measures had been given an early and thorough trial by competent hands in this boy's case, but effected nothing. No assigned cause, as injury, was given for either case. Prof. Owens shows that many cases of hip disease and Pott's disease are of traumatic origin. He also affirms that the scrofulous appearance of this class of patients is in very many cases due to the bone disease, and that it does not by any means always bear a causative relation to it. The diseased hip-joint in each was disorganized, and the hip riddled with sinuses discharging pus in enormous quantities. All presented the pale transparent skin, fair hair, blue eyes, glandular enlargements, small muscles, large joints, tissues weak and of flabby texture, large abdomens, precocious minds, etc. The affected limb was adducted and shortened, the flexion of the thigh on the pelvis causing marked lordosis.

The muscular atrophy from want of use was great in the gluteal region, but existed in the whole limb when compared with the other one. The children were, in this stage of the disease, only occasionally affected with pain of any consequence. Dead bone was made out with the probe in each case in the situation of the head of the femur. Preliminary to the operation, which was demanded by the necessities of each patient, they were put upon quinine and iron, which, with the improved hygiene of the institution over that of their homes, effected such improvement in their general health as rendered them fair subjects for operation in about one month.

Operation:—Being the same in the three cases, one description serves for all. During the administration of the ether Prof. Owens gave as the indications for the operation: (1) Failure of orthopædic measures; (2) extensive bone mischief, with copious suppuration; (3) bad general condition; (4) in his experience the

operation has been a very successful one in childhood; and again, he remarked, what does further conservatism promise? death from exhaustion or amyloid degeneration of the viscera, or a remote and tedious recovery by ankylosis of the diseased joint. Patient being anæsthetized, and the part to be operated upon carefully cleansed and carbolized, Prof. Owens proceeded to operate, first verifying the presence of the dead bone with the probe, then with a strong scalpel beginning the curved incision, concave forwards from two inches above the greater trochanter to two inches below it, along its posterior border down to the bone. This was now denuded of its periosteum and soft parts by the elevator, and what remained of the carious articular surfaces was found in opposition. In regard to this point, Prof. Owens admits deformity resembling luxation, but the cause was always caries with absorption of bone, and in his now rather large experience he has never found the surfaces other than as in these cases, and is skeptical regarding the occurrence of the so-called spontaneous dislocation. The lips of the incision were now held apart by retractors, and the bone sawn through its upper extremity above the lesser trochanter with an Adams' saw; not, however, without previously attempting to turn the head of the bone out of its socket. This maneuver failed, as it occasionally does, in consequence of an involucrum formed around the remains of the joint by long-continued inflammation. What remained of the head, neck and greater trochanter were evulsed by the lion-jawed forceps.

Why is the greater trochanter removed when not involved in the caries? Because if left (1) it serves as a constant irritant to the tissues. (2) It is next to impossible to keep it away from the pelvic bones, causing pain from friction of the roughened bony surfaces. (3) It forms the outer wall of a pocket which cannot be efficiently drained. The last is the chief cause for its removal. A considerable extent of carious bone in the acetabulum in one case, L——. K——., was removed with the bone scraper. All of the sinuses which had led into the diseased joint through the undermined tissues, were slit up into the excision wound upon a grooved director. The condition of these sinuses, many of them containing particles of carious bone, made this the only means of securing the necessary cleanliness and drainage to

insure their healing from the bottom. The hæmorrhage was slight, and in no instance did a vessel require ligation. The operation lasted thirty minutes. The wound was now irrigated with a solution of carbolic acid 1-40, sponged dry, poured full of balsam of Peru, and completely filled by a tent made of a rope of oakum. The whole hip was now covered with a compress of oakum, and all retained by a bandage. The patient was then put into a Sayre's wire cuirass, the efficient padding of which is so important that it should receive the physician's personal attention. It is done in this way: The wire splint is covered with sheet wadding, cut in the proper shape and in sufficient quantity to insure thickness and softness. These layers are then covered with a rubber cloth, which is sewed on, smoothness being very essential. If this is not followed out, it will require more than ordinary care to prevent bed-sores. In addition to the permanent padding, a number of layers of sheet wadding were always put between the child and the splint. The extension of the shortened limb was effected by means of adhesive straps passing from the sides of the leg over the foot-piece, which was adjusted by means of a screw. The foot of the sound leg resting against its foot-piece furnished the point of support or counter extension. The body and both lower limbs were neatly bandaged to the splint. Sufficient extension only was kept up to prevent friction of the roughened bony surfaces, thereby preventing much pain. A practical point in this connection is that pain in the knee and the hip was often due to this cause, and received prompt relief by a few turns of the screw slightly increasing the extension. An anodyne was administered on recovery from the ether, and subsequently repeated when pain or nervousness called for it. Shock from the operation was slight.

Surgical fever in but one case went above 102°, lasting a few days and falling to normal. The dressings were removed forty-eight hours after the operation; the wound irrigated with a 1-40 solution of carbolic acid, thoroughly repacked with oakum saturated with balsam of Peru, and the whole hip covered with a compress of oakum placed between two layers of gauze—the inner one being lubricated with vaseline to facilitate its removal. From

this time up to the discharge of the patients this was done once daily, a tent, such as just described, being used until rendered unnecessary by granulation of the bottom of the wound. To protect the splint and the bed from the discharges of the patient, early teach the child to make his wants known, when by a suitable vessel and care in the position of the splint, the dressings are kept clean. Once weekly the cuirass was cleansed, the patient being removed for the purpose. The cuirass was omitted entirely after a time, averaging two months for each case. It is done gradually, thus: leaving it off for a few hours every other day at first, increasing time and interval so that in a short time it is laid away. In about two weeks after effecting this, apparatuses were put on each case.

In the case complicated with Pott's disease, F—— Y——, the apparatus consisted of a plaster jacket, a pair of crutches, and for the foot of the short limb a shoe, the sole of which was augmented by four ounces of lead. This limb being sufficiently short, no elevation of the sound side was required. He was from this time on taught, gradually and carefully, to walk, and left the hospital with the apparatus on four months after the operation. Six months later the apparatus, with the exception of the crutches, was discarded, the case illustrating beautifully a cure of a Pott's disease and of a hip disease with a movable joint.

In the case of S—— K——, a plaster jacket was also put on, and to this was attached, by a few turns of the plaster roller, an iron frame which supported a ball and socket joint opposite that of the hip. From this a steel bar, with ratchet in thigh piece, extended down the outer side of the limb, fastening to the sole of the shoe below; another bar extended along the inner side of the limb to the upper part of the thigh. These bars had hinge joints at knee and ankle, the former being a lock joint. They were held to the limb by leather bands buckling in front. Extension was effected in this case by means of the ratchet in the external thigh bar. This patient was also discharged about four months after the operation, with the apparatus still in use. A movable joint was secured in this case.

L—— K—— had applied a splint consisting of a leather pel-

vic band with a steel bar extending down the outer side of the limb to the sole of the shoe, and another one from this place along the inner side of the limb to the upper part of the thigh. These bars had hinge joints at the knee and the ankle, and the external thigh bar one opposite the hip-joint. This splint was put on to correct the marked internal rotation of the limb that had taken place. Extension was effected by a weighted shoe as above described. A pair of crutches completed the apparatus. The boy was taught to walk, and discharged in good condition, with a movable joint, seven months after the operation. The convalescence was protracted from leaving the tent out too soon, the wound healing superficially and requiring a secondary operation to secure drainage and make it heal from the bottom. In this operation the upper end of the femur was exposed and found to be smooth and rounded. This case has since (May, 1883), returned to the hospital with three sinuses leading down to carious bone. Considerable pus was being discharged. His general condition was much worse than when he left the institution. Ether was administered, and an incision two inches long was made in the line of the old cicatrix. Carious bone was found in the acetabulum and removed with the bone-scraper. A drainage tube was inserted and brought out at an opening two inches lower down. The wound was packed with lint and a gauze dressing put on.

An interesting fact in connection with these cases was the early and marked improvement in the general health which followed the removal of the carious bone.

July 20, 1883.

L—— K—— is in the hospital, convalescing favorably from the last operation. He is up and about, using apparatus consisting only of a pair of crutches and a weighted shoe for foot of short limb.

F—— Y—— is at home; all of the the sinuses healed; using no apparatus of any character.

Report from S—— K—— at this date is not favorable. The sinuses not healed are discharging pus, and doubtless lead to carious bone. The new joint is almost immovable. She is up and about, assisted by a crutch. She eats and sleeps well. This

child was unfortunate in being removed to quarters where she did not receive the requisite surgical supervision. Her plaster jacket was left on for a year; passive motion of the new joint was certainly neglected, as shown by the ankylosis which took place after she was taken away from St. Luke's; and further, I infer from the report received that she has been seen but two or three times by a physician during this time. This case illustrates that patients of this kind require the watchful eye of the surgeon until full recovery has taken place.

Prof. Owens entertains the following views on this subject:

1. He recommends removal of the greater trochanter in the excision.
2. He asserts that traumatism, not scrofula, is the cause of the disease in a majority of cases.
3. He is skeptical regarding the spontaneous dislocation of the third stage of hip-disease.
4. In the treatment after excision, he places much value on the employment of an apparatus with a ball and socket joint opposite that of the hip, in effecting a cure with a movable joint.
5. With additional experience he becomes a stronger advocate of early excision.

No. 112 E. MONROE STREET.

ARTICLE VI.

HOSPITAL CLINICS, Given at the New York Hospital, by Prof. W. H. DRAPER, of New York City. Reported and arranged by W. F. Becker, M.D., Wauwatosa, Wis.

NO. 1. A CASE OF PSORA.

The patient is a male, æt. 17 years; native of Germany; occupation, sailor. He has always enjoyed excellent health. Two years ago, from sudden effort, sustained an inguinal hernia. No history of gonorrhœa or syphilis. Temperate habits. Bowels have been regular, digestion and appetite good. Does not remember ever having eruptions when a child. Two weeks ago there appeared a vesicular and papular eruption between the fin-

gers of left hand, with much irritation. At the same time there appeared a slight lump under left arm. Subsequently the right hand became the seat of a similar eruption, followed by the same condition at the inner side of thighs and elbows. The patient cannot account for the cause of the disorder.

Examination.—At the present the eruption does not exhibit any distinct individual character of skin lesion, for erythematous spots, vesicles, pustules, blebs, papules, superficial ulcers and scales are all present. Vesicles between the fingers are well marked, exist around wrist and arms; several are well marked on genitals, none on face or neck; scratch marks disguise the character of others.

Remarks.—The disease from which this man suffers is scabies, or psora, or itch, as it is commonly called; it belongs to the group of parasitic skin diseases. It depends upon the existence of a parasite called *sarcoptes scabiei*, or, more commonly, *acarus scabiei*, which produces a vesicular eruption. Later the eruption changes, assuming a polymorphous or multiform character, consequent upon irritation caused by its presence. In this patient the polymorphous form developed very rapidly, it being but two weeks since the disease began.

The history of this disease exhibits many curious facts, interesting from a scientific aspect. The *acarus* is an insect readily seen with the naked eye, which thrives on human integument, choosing for its invasion such parts where the skin is soft and tender, as on the insides of fingers and toes, in the flexures of joints, as about the ankle, wrist or axilla, on inner side of thighs, and genital organs. These regions are the seat of election of the disease. Sometimes in certain artisans the insect selects other parts of the integument, which are subject to pressure and warmth. Thus, in tailors or shoemakers, who sit much, or in men who ride much, the disease not infrequently develops in the skin of the buttocks. Usually, however, it begins on the hands, and only reaches other parts by their contact to those regions, generally next invading the genital organs, and later reaching other parts.

The insect does not thrive upon the surface of the integument, as do the *cimex lectularius* (bed bug), or *pediculi*, but bores its

way into the epidermis, and makes its nest between the horny and mucous layers of the same, at a varying distance from the point where it penetrated. The canal thus formed is called the cuniculus. It can be detected only by close inspection, revealing itself by a grayish or whitish streak of a varying length, sometimes one-fourth of an inch or more. Here the female lays her eggs, and in the course of about ten days the eggs are matured, and reach the surface by the exfoliation of the epidermis. The young are there discharged, and meeting the male become impregnated, and in their turn burrow a new cuniculus, to repeat the process of their parent. The male acarus also burrows, but not so deeply as the female, only passing under the scales and crusts.

Symptoms.—The first symptom is that which is subjective and excites the patient's attention. It consists, as in this case, of a severe itching between the fingers. This irritation in some people of nervous temperament, is not confined to the part invaded by the parasite, but is universal—a general irritation existing, causing patients to scratch themselves everywhere; and the polymorphous form of lesion seen at the seat of the disorder is not caused by the ravages of the parasite, but subsequent and consequent to the scratching induced by the irritation of its presence.

The next symptom after the itching is the appearance of an eruption of a peculiar kind. This is, in its earliest stage, a vesicle with the acarian burrow or cuniculus running from it. This vesicle is after a time destroyed by scratching, and other lesions appear, following inflammation thus caused. The diagnosis is made from the polymorphous nature of the eruption, its location and the cuniculus, if seen. The crucial test, however, is the discovery of the acarus. This is done by inserting a needle through the cuniculus into the vesicle and turning out the insect. With the naked eye this has the appearance of a small white roundish body—under the microscope it develops more distinctive proportions. The discovery of the insect is often impossible, because of the destruction of its characteristic seat by scratching. It is claimed by many that without the discovery of the characteristic vesicle and the burrow

leading from it, one is not justified in pronouncing the disease as scabies. This is too forcible an assertion, for sometimes the disease does not show this kind of vesicle; besides, it may be destroyed in the manner mentioned, and its distinctive character thus lost.

Scabies is contagious, as all parasitic skin diseases are, and it may be transmitted by contact with person or from wearing apparel. Its contagiousness to a certain extent depends on individual susceptibility. All persons are not equally susceptible to vegetable or animal parasites. It is necessary, besides the contagious element which they contain, that they have the proper host for their reception. The acari select their host—they do not find all congenial. Among the large number of persons surrounding the bed, many might shake the hand of the patient without being affected, while others could not do so with impunity.

Treatment.—This is very satisfactory when the diagnosis has been correctly made, but it must be carried out properly. The rational method is to remove the cause. For this a large number of drugs have been employed—carbolic acid, creasote, mercury, salts, and others; but of all parasiticides, sulphur seems to be the classical one for the disease. It is used in the form of baths, fumigation, or inunction. The last is the more frequent manner, and its details can be well set forth, perhaps, by describing the process adopted in Paris in the larger hospitals, where a large number of such cases are treated, particularly in the hospital of “St. Louis,” which is devoted exclusively to treatment of skin diseases. Here there are several apartments. In the first the patients are undressed, and stand around a bin of soft soap. With this each patient rubs himself and his neighbor, the object being to soften the epidermis; then another apartment is entered, where they lie in hot baths for a period of from twenty minutes to half an hour. This is to still further favor the process of softening the integument. The third apartment contains in its center a tub, filled with sulphur ointment, in the proportion of about three parts of sulphur, one part carbonate of potash and eight parts of lard. Here the process of inunction is gone through with in very much the same manner as that of

soaping; then the patients dress in their own clothing, which thus becomes disinfected. The entire process is repeated from three to five times, and the most obstinate cases are usually cured.

The same plan can be carried out in private practice. Care must be taken to make the application all over the body, as the acarus is migratory. The scalp, face and neck, where her incursions are scarcely ever found, are the only parts which may safely be excluded. The primary softening of the skin by the soaping and the bath is very important; without it the ointment is not efficient, for it opens the vesicles and the burrows and exposes their contents to the action of the sulphur. When the object of the treatment, viz., the destruction of the cause, is carefully adhered to, it generally gives much satisfaction.

ARTICLE VII.

LACTIC ACID IN DIPHTHERIA.—BY J. P. LYTLE, M.D.

Several years ago I saw a suggestion in one of the medical journals that a spray of dilute lactic acid would dissolve pseudo-membrane of croup.

I concluded that if it would do so, it would also dissolve the membranous deposit of diphtheria. Since then I have used it in a number of cases with the happiest results. Where the patient is old enough to permit a thorough spraying of the throat I have not failed to remove the deposit with two or three applications, sometimes with one.

May 4, 1883, 4 P.M., was called to see young B., aged sixteen. Face flushed; pulse quick; temperature 102; throat very painful, and deglutition very difficult. Upon examining his throat I discovered a gray, gelatinous membrane fully one-eighth of an inch thick, covering the entire tonsil, and extending over the soft palate of left side; right inflamed and swollen, but no deposits upon it. I sprayed the throat with the following solution: Acid lactic concent., gtts xxx, aqua 3i, and had the satisfaction of seeing the membrane entirely disappear. I put him on general treatment, stating that I would call in the morning. I then

found the left tonsil and palate clear, but the right tonsil and palate had upon it a deposit fully as extensive as the left had upon it the night before. I again used the spray, and had the satisfaction of seeing the throat clear of deposit when I was through. I continued the general treatment, and left a solution acid lactic gtts x, aqua $\mathfrak{J}\text{i}$, to be used as a gargle. He made a rapid recovery, and there was no more deposit of membrane. To those of your readers who have not used the acid in this way they will find it worthy of trial. I use a double-bulb rubber atomizer with rubber tip.

RESECTION AND EXPORTATION OF THE STERNUM.

The resection of the sternum so far has been executed in Italy by Rizzoli, Mazzoni and Pecchioli. Heidelfer has reported 25 cases of resection of small portions of the bone. Parona reports in the *Indipendente* a case of a woman fifty-six years old, affected for three years with necrosis of the sternum. An operation was performed with a complete success, as the bone was reproduced almost completely, although the woman was of such an age, and in a debilitated condition, and moreover, there existed a gangrenous condition of the edge where the periosteum was attached. The fact of the bony reproduction in this case is of an exceptional importance, as no one of those operated upon for resection of an extensive portion of the sternum was of such an advanced age as the patient of the author.—*Lo Sperimentale*.

AXILLARY HYPERIDROSIS OF NAKED PERSONS.

M. Aubert, in a paper read before the Medical Society of Lyons, asserted that under the influence of nakedness the axillæ become moister, and can be seen to change in redder color. M. Aubert believes that this phenomenon produces an elevation of temperature of the arm-pit caused by a general lowering of the temperature of the surface of the body. He, therefore, combats the habit of taking the degree of temperature with the axillary thermometer.—*Lyons Medical*.

Society Reports.

ARTICLE VIII.

CHICAGO MEDICAL SOCIETY.

The society held its regular semi-monthly meeting at the Grand Pacific Hotel, on the third Monday evening of July. Dr. D. W. Graham presided.

During the session, several valuable papers were read. The first was by Dr. H. D. Valin, who read a practical paper of much scientific interest, "Mechanical Equivalent of Animal Heat." The paper forms part of a manual of biology which he is writing, and the views expressed in portions of it by the writer differ from those of older authors. As the paper has been printed in this JOURNAL in its originality, further comment thereupon is thought to be unnecessary.

Dr. W. L. Axford read notes of a report of a case of bilateral and forward dislocation of the fourth cervical vertebra. The accident occurred to a little girl eight years of age, in March of the present year, and during the past few months she has almost entirely recovered from its effects. There was no injury to the cord, nor resulting fracture. The extent of the dislocation was estimated to be two-thirds of an inch. Drs. E. Andrews and J. G. Kiernan were called to see the case, and concurred in the diagnosis. The treatment adopted was the "let alone" method. She now keeps her head more fixed and forward than the normal position is, and it may be possible that in time inflammation of the membranes of the cord may occur, although at present no trace of this can be detected, nor has any paralytic symptom been developed at any time since she was hurt.

Dr. C. T. Fenn read a report of a case of "Acute Hepatic Abscess — Mistake in Diagnosis; Free Opening; Death and Autopsy." The following synopsis is here appended:

The subject was a German lad, æt. fourteen, who had been a blacksmith's apprentice. On June 16, 1883, he went home complaining of toothache, headache, pain in the right side and cold. On the second day, his bowels moved slightly from the effects of castor oil taken the day before; he had a feverish pulse and hot skin; offensive breath; pain in his head, neck and limbs, and especially under the right breast. *Tr. opii deodor.*, *chloratis kali* in glycerine and *aqua distil.* was given him, and *emp. cantharidis* 4x5 applied at night to the right side, across and above the short ribs.

On the third day, the fetor was corrected, and the pain in the side had subsided, but there remained a coated tongue, thirst, headache, tympanitis, rapid pulse, high temperature, and a tendency to cough that caused pain in his side. On the fourth day, he uttered a short cough with every breath. There was decided flatness (as Dr. F. thought) over the lower lobe of the right lung, extending from the nipple downward, and poultices were applied continuously from this time. Tympanitis was present, and a perceptible bulging of the right side. Constant resting on his back caused extreme discomfort, with perceptible shortening of the breath. On the fifth, sixth and seventh days, the temperature of the body was high; the pulse over 100 during the day, with increase at night. No tendency to spontaneous movement of the bowels; the urine was darker than normal, but skin and conjunctiva unaffected. He was obliged to sit in a chair to procure rest. In this position the heart was noticed beating between the second and fourth ribs. The dullness on the right side extended to one and a half inches above the nipple. Salicylate of soda was given him, which seemed to remove entirely the troublesome cough he had been having. There remained, however, a dark, moist coat upon the tongue, marked thirst, tympanitis and constipation, although large enemata had been introduced daily, which were retained. He loathed beef tea, but found satisfaction in tea, coffee, milk and lemonade. On the eighth, ninth, tenth and eleventh days the treatment was opiates, nutriment, expecto-

rants and poultices. On one of those days he evacuated the bowels copiously, the contents being dark, thin, and of disagreeable odor.

On the twelfth day, he seemed much improved. The fullness in the lateral chest and abdomen disappeared. He slept and ate with evident benefit; discontinued the poultices, but had to get an easy position by sitting in his chair by day. On the fourteenth day, there was an exacerbation of symptoms; the dullness which had been lowering in his side increased; he had chills, sweats, and extreme fever, especially in the evening. On the fifteenth day, Dr. D. T. Nichols was invited to see him for the purpose of assisting in surgical interference, should the diagnosis be confirmed, which was "pleurisy with effusion." The aspirator was used, at a point about a third of the way from the median line in front to the spine, and between the eighth and ninth ribs. Pus was directly perceived. A free opening was made, followed by a copious, sluggish stream of rather offensive matter; a drainage tube was inserted, and the external wound dressed with cotton soaked in carbolized glycerine. Before closing the wound in this manner, a finger was inserted in the opening, and a smooth, soft wall, apparently held together by strong trabeculæ, was felt, and we concluded the lung was broken down at the site of the large abscess. The case seemed to be a hopeless one, considering the rapid development and quantity of pus that escaped at the time and during the night, which was at least a pint.

On the sixteenth day, he was greatly relieved. The cavity was thoroughly cleansed with carbolized water, but it would be returned almost clear. The patient was so relieved that it seemed a work of magic had been done. The dorsal decubitus was now one of relief, and his slumbers were quiet and restful.

On the eighteenth day, the external wound was clean and dry. The washings were still continued, but septicæmia had appeared. Supposing the case to be one of abscess of the lung, we thought it strange that this was the only constitutional symptom present, although he had a return of the chills, followed by extreme heat, and cleansing the interior was on the whole unsatisfactory the three subsequent days. While deliberating what new means we would devise, the patient had a rigor from which he did not rally,

and died on the morning of the twenty-second day, notwithstanding the free administration of quinine, other tonics, etc. etc., that had been given him in addition to the various other remedies.

Autopsy—twelve hours after death; body surrounded by ice, distended and purplish-yellow appearance of face, neck, chest and abdomen, as if decomposition were quite advanced. Incision from top of sternum to three inches below umbilicus; contents of chest exposed. The lungs were both healthy, and crowded up to occupy half their normal space. The heart was beneath the second and third ribs. The liver extended across the body on a line above the level of the nipples. The stomach and intestines distended, aided in forcing it high. The opening to the abscess was directly over the thickest portion of the liver, and about one-third of the organ seemed to be involved. The peritonæum was not inflamed; the spleen was enlarged and softened. No other observations were made, and it was not easy to determine how the abscess had its origin.

Dr. W. H. Curtis asked the author of the paper if diarrhœa had been present any time preceding his sickness. Answered, negatively.

Dr. D. R. Brower inquired if jaundice was present. Answered, no; excepting shortly after death when the surface turned yellow.

Dr. Axford inquired if the edges of the liver became adherent to the walls of the abdomen. Answered, no.

Dr. Valin had seen a case of abscess of the liver during the spring of last year. The patient (a man) had malaria twelve years previously. The inflammation lasted nine to eleven days, when the abscess was opened and eight ounces of pus removed. There was no jaundice nor diarrhœa in the case, but decided motion of the heart was noticed.

Dr. L. H. Montgomery asked Dr. Fenn what different method of treatment would have been pursued had they diagnosed the case to be an abscess of the liver? Answered, the treatment would have been substantially the same, and this was one reason why he reported the case, as well as the somewhat comparative infrequency of this trouble in private practice.

Dr. Curtis then recited briefly the histories of four cases of

hepatic abscess that he had met with in the temperate zone. The first occurred in an Indian boy, and pointed toward the ribs. A free incision was made, and there was evacuated a mass of lumbricoid worms as large as a fist, followed by a discharge of pus. In this case the worms caused the abscess. The boy recovered.

The second case occurred in a habitual drunkard who had chronic liver trouble. During one of his periodical sprees he was exposed to cold and dampness resulting in an abscess. Adhesions formed; an opening was made and a large quantity of pus discharged. He, too, recovered.

The third case was an old lady sixty-two years old. She also had marked jaundice, and marked symptoms of septicæmia. As purpura set in, in two weeks it ruptured into the lung, when she expectorated a good deal of pus. She rallied and got up. Then she was attacked with chills and fever, and became "hectic." It "gave way" again, this time into the stomach, so that she vomited the pus, but she finally made a good recovery. She had a cicatrix in her side since sixteen years of age, when a number of gall stones had been removed, over forty years ago.

The fourth case was that of a railroad president who had been under Dr. C's care for a fortnight. He diagnosed the trouble to be abscess of the liver, and wished to aspirate it. The friends of the patient desired counsel in New York, and he was accordingly taken there, when Dr. Hammond aspirated him, followed by a good recovery.

Dr. D. R. Brower exhibited the heart of a patient that had died of endocarditis, in which there was an extensive lesion and roughening of the mitral valve. The trouble dated from an attack of puerperal fever of a year ago. No possible abnormal condition of the heart could be detected. There had been no murmur present, and Dr. B. thought the valve was therefore perfectly sufficient in its action. No murmur could be detected after exercise. The patient had shortening of breath. She was anæmic and greatly emaciated. An embolism was also found. The rarity of the case when such serious lesions were present, was his reason for presenting it before the society. She also had chorea; and to him the case and pathological specimen had elicited much interest. The society then adjourned *sine die*. L. H. M.

ARTICLE IX.

CHICAGO PATHOLOGICAL SOCIETY. Regular meeting August 13, 1883.

The society was called to order by the President, Dr. Angear. The minutes of the last meeting were read and approved.

Dr. Fannie Dickinson was proposed for membership by Drs. J. E. Haynes and D. R. Brower.

The society then listened to the reading of a paper by Dr. Brower, entitled "Notes of a Fatal Case of Chorea, Its Pathology and Treatment."

This paper, which the author stated would subsequently be published in THE CHICAGO MEDICAL JOURNAL AND EXAMINER, gave a full and detailed report of a very interesting case of chorea, occurring in a female, with a fatal termination.

Dr. Brower, after reading the notes of the case, remarked his interest in the subject of heart lesions without murmurs. The case of Trousseau was the only one he knew of where lesions were present but no murmurs were observed.

The paper being before the Society for discussion, Dr. Lyman stated that in some cases a change of position would develop a murmur when not noticed in a sitting posture. Auscultation after fast walking or running, and sometimes in the recumbent position, would alone reveal a murmur otherwise undetected.

Dr. Angear remarked that as the murmur would depend upon the obstruction to the circulation or the roughness of the valves, if the disease had not caused this roughness or obstruction to any considerable extent, the sounds would be too delicate to be detected without special instruments. Temporary heart difficulty might cause embolism, which produced its effects after the heart had regained its tone. The point that chorea was a paresis of the nerves was a disputed one; this case supported the view, for, the brain being affected, chorea appears instead of paralysis or softening.

Dr. Lyman thought that the lesions could be predicted if any were found. Most cases recover. It was not common to find embolic obstruction as in above case; sclerotic patches some-

times appear in choreiform cases ; this case showed the characteristic lesion.

Dr. Brower thought that in recently reported cases lesions had always been found, generally in the left corpus striatum. In cases reported some time ago, there was not the care and pains taken in examination. Sixty-five per cent. of cases show heart trouble.

Dr. Lyman stated that if obstruction existed in the heart, and emboli were detached and carried to the brain, the right side of the brain would be liable to be affected. He then inquired what treatment seemed most valuable in the case reported.

Dr. Brower, in reply, stated that the general treatment was unsatisfactory ; that morphia, in $\frac{1}{2}$ gr. doses, would quiet the patient somewhat. He used chloral in 40-grain doses in vaginal injections. This had no effect, as also drachm doses of potassium bromide and 1-30 gr. doses of hyoscyamine. Chloroform was used once only as it oppressed her breathing.

In order to cease movement, she must sleep under morphia, in $\frac{1}{2}$ gr. doses, which had less effect than $\frac{1}{4}$ gr. to the ordinary patient. After a profound sleep, she had more movement than before. In ordinary cases of chorea in children, Dr. Brower gives Fowler's solution prepared without the lavender, in four drop doses, hypodermically, four times a day.

Children bear arsenic wonderfully well ; in one case of a child, gave eight drops three times a day, before the paroxysms were controlled. He had never seen any bad effects from its use. This statement was endorsed by Dr. Lyman. Strychnia he considered of less value. To the general treatment he always pays careful attention ; uses port wine in large doses generally with citrate of iron ; three or four wineglassfuls a day will generally produce sleep better than an anodyne. The iron should be given when indicated, and it generally is—preferably the milder preparations.

The use of the battery is difficult with children. Employs ether spray to spine with good effect.

The society then listened to a verbal report of a case of infantile tetanus, by Dr. E. P. Murdock. The age of the patient was five days. Dr. Murdock was summoned in the afternoon, and

arrived at 8 P.M. Found child in a convulsion. The spasm was a most violent one; the features cyanosed and emaciated, and the whole frame greatly shrunken in twenty-four hours, as stated by parents. The spasm soon relaxing, breathing became easier, but at touch the child again convulsed. A touch upon the chair upon which the child's bed was made would cause a convulsion; the abdominal muscles were rigid, and an irregular reddish spot appeared about the umbilicus, of the color of eczema rubrum; the bowels had been regular; the temperature 100° ; deglutition difficult. Gave tincture physostigma, chloral, and potassium bromide. Morning found the child weaker; prostration extreme; diaphoresis and diuresis profuse; child could not swallow the medicine. Called Dr. Angear in consultation, who advised the same medication administered per rectum. In the afternoon, the temperature was 108.5° , and death occurred.

Among the interesting features of the case were, 1. The spasm was excited by fanning. Justifiable force could not bend the arm or move the jaw, while complete relaxation occurred after the spasm. 2. The peculiar redness about the umbilicus. 3. The high temperature before death, 108.5° . He had never observed a temperature so high.

Dr. Brower then mentioned two cases of tetanus in the practice of Dr. Hosmer Johnson in one year, cured by large doses of quinine. Cases of "toy-pistol" tetanus had recovered under full doses of quinine. Dr. Jones, of New Orleans, reports recoveries from tetanus by use of quinine.

Dr. Lyman would ask if Dr. Murdock had noticed the condition of the bones of the cranium? Some one who had had considerable experience noticed a displacement of the cranial bones, the parietal overlapping the occipital. By replacing these bones, he had relieved a majority of cases of tetanus. This was the only allusion of which he had ever heard to this condition. It would be well to keep it in mind.

Dr. Murdock had noticed depression of the fontanelle, but not overlapping of the bones. The residence and surroundings, locality, etc., of the patient were of the better variety; no indication of foul air or filth of any kind.

The Society then listened to the final paper of the evening, by

Dr. Walker, upon the operation of "Lithotomy," end report of case in a child seven years of age. It was the left lateral operation, with a very favorable result.

The operation in boys, the author stated, presented several difficulties—

1. Owing to shortness of the perineum, the first incision is very near the scrotum.

2. The bladder lies high, rather above the pelvis in the abdominal cavity; so that the incision, if not upward, must be at least straight ahead—not downward.

3. If the incision should prove too contracted, the membranous urethra may be torn across with the finger, and push the bladder backward, the least disastrous result of which would be a traumatic stricture.

The paper being before the society for discussion, Dr. Lagorio remarked a case of a child, three years of age, as operated on. The child played about the floor on the third day, and was entirely recovered in three weeks.

Dr. Angear in 1879 saw Pollock, of London, operate on a four year old boy, using a straight staff, a pocket scalpel and small dressing forceps, exposing and removing a stone in as many moments, as he (the narrator) was using in description. The fuss was less than in extraction of a tooth.

An application for membership was then made by letter from Dr. Erichsen, Detroit, Mich., but as by constitution all members shall be residents of Chicago, the Secretary was requested by motion to so inform the gentleman.

Among those present were Drs. Angear, Brower, Beecher, Dobbin, Harper, Hayner, Lagorio, Lyman, Murdock, Newton, Patton, Tebbetts, Walker, and four visitors.

The Society on motion adjourned.

J. H. TEBBETTS, Secretary.

ARTICLE X.

CHICAGO PATHOLOGICAL SOCIETY. Regular Meeting, September 10, 1883.

The Society was called to order by the President, Dr. Angear.

Dr. J. E. Harper was elected secretary pro tem. The reading of the minutes was dispensed with.

The Society first listened to the reading of a paper by Dr. Charles Warrington Earle, entitled, "Cephalhæmatoma of the New-Born."

This condition, consisting in a soft tumor of the bone, is more common than usually supposed. It is generally formed on the right parietal bone. Prof. Byford, and one or two others, have reported a double hæmotoma. The seat of the tumor is between the bones and the periosteum, and is caused by the rupture of a vessel.

• **Ætiology.**—We are taught that these cases are due to the pressure of a rigid os upon the scalp. It is liable to be confounded by—1st, caput succedaneum, a condition of œdema; 2d, hernia cerebri; 3d, vascular tumor; 4th, protrusion of the cerebral mass through an opening made by syphilis. The treatment consists in a judicious non-interference.

The paper being before the Society for discussion and remarks, Dr. Lydston stated that he had seen two cases, both over the left parietal bone.

In syphilitic children, meningeal hæmorrhage often occurs after a few days, and the child succumbs.

Dr. Earle then read a second paper, entitled, "Disease of the Spleen, and Report of a Fatal Case."

June 28, Mrs. C. had an ordinary attack of indigestion; five days after he saw her again, and found temperature 101°, pulse 80, abdomen distended, and the lady in considerable pain. June 30 she began to fail, and pulse was more rapid; July 2, rapidly failing, with all symptoms of purpura hæmorrhagica.

Autopsy.—Spleen enlarged, weighing 19 ounces, showing suppuration; microscopic examination showed fatty degeneration of the arteries.

Diagnosis.—Pernicious progressive anæmia resulting from a peculiar sepsis following sewer-gas poisoning. Dr. Earle regarded it as a rare case of splenic disease.

Dr. Angear would like to know whether the microscopist was an experienced one, and if his statement that the arterial coats had undergone fatty degeneration could be relied upon? This

being the case, hæmorrhage resulted and was followed by peritonitis which caused death.

Dr. Mergler had seen the post-mortems of four or five cases of pernicious anæmia, and in all the abdominal organs were very pale. In this case Dr. Earle stated that there was no discoloration noticeable.

Dr. Lydston recognized some similarity to cases of typhus fever as far as the splenic condition, ecchymoses, etc.

Dr. Earle asked if any one present had seen an autopsy in a case of leucæmia ?

The society then proceeded to discuss the subject of "Sponge Grafting," so called. Dr. Angear reported a case of a lady about 40 years of age who had an ulcer on the lower extremity, of six years standing, and who had not menstruated during this time. At each period hæmorrhage occurred from this ulcer. After trying the usual methods without success, in desperation, tried sponge grafting. One week after applying sponge the entire ulcer had healed ; but in about six weeks after the ulcer reopened, and all the new skin, with the exception of a few islets, sloughed off.

Dr. Newton reported a case in which six grafts were used, and had a good result.

Dr. Tagert thought it advisable to cover the entire surface with the sponge. Dr. Newton called attention to Dr. Hamilton's later method of using sponge in small pieces, in preference to large ones. Dr. Angear thought the sponge serves only as a protection to the delicate blood vessels and cells until the new tissue is formed, and hence the term "sponge grafting" is misleading.

Dr. Patton thought the results obtained from both skin and sponge grafting depends upon the establishment of new and independent foci for the production of plastic lymph.

The society, on motion, ajourned.

J. E. HARPER,

Secretary pro tem.

Domestic Correspondence.

ARTICLE XI.

OFFICE OF THE SECRETARY,
SPRINGFIELD, Ill., Aug. 13, 1883. }

Dear Sir:—I beg to call your attention to the following, without any comment other than the remark that nowhere in my report is there any claim that the Sanitary Council has done anything more than *supervise the inspections* formerly maintained by the National Board of Health. Extract from report of proceedings of the Louisiana State Board of Health, at its regular meeting in New Orleans, August 9th, 1883:

“Mr. Booth, after eulogizing the press in general, said it sometimes assisted, whether knowingly or not, to circulate false and injurious statements. One of them was a report made by Dr. John H. Rauch, agent of the Sanitary Council of the Mississippi Valley, and published in a recent issue of the *Memphis Avalanche*.

“Mr. Booth characterized the statements and tenor of the publication to be false and libelous upon this Board, and he thought the Board should reply to it by some official act. However false such a publication, it will mislead honest people, and for that reason it should receive notice.

“Mr. Booth then offered the following:

“WHEREAS, It appears that Dr. J. H. Rauch, of Springfield, Ill., signing himself as Sec. S. C. M. V., has made a report to President Hadden, of Memphis, wherein it is stated that the late National Board of Health and the present Sanitary Council of the Mississippi Valley have so successfully conducted the Louisiana-Mississippi quarantine during 1883, that it is no longer

- necessary for a Sanitary Council inspector to remain at said quarantine, and that consequently said inspector had been withdrawn, with much other alleged information touching the conduct, statistics, management and general work done and action had at said quarantine, intended doubtless to misrepresent the situation in so far as to lead to the belief that this Board was not, and the Sanitary Council was, attending to the health affairs of the State and valley as they stand affected by their relation to the Mississippi River and its commerce with tropical countries. Therefore, as such belief would be based upon erroneous grounds, to the detriment, as far as entertained, of the standing of this Board before the people, be it

"*Resolved*, That this Board protests against the statements of said Secretary Rauch as a tissue of curiously interwoven statistics, in themselves true, but perverted by a malignant intelligence to the uses of falsification and perversion, incredible in persistence and monumental in audacity.

"*Resolved*, That a copy of this paper be sent to the President of the Sanitary Council of the Mississippi Valley, that he may lay it before his association at their next meeting, with a view to the removal of said Dr. Rauch from an office which he puts to so poor or so bad a use.

"The resolution was adopted.

"The Board then adjourned."

Full text of report characterized by Dr. Joseph Jones, President of the Board, and Mr. Booth, a member, as "false and libelous" in "statements and tenor:"

"Dr. Rauch, the executive officer of the Sanitary Council of the Mississippi Valley, has completed his report of the operations during the month of July, of the inspection service, formerly maintained by the National Board of Health, but now supervised by the council. From this it is learned that at the Mississippi river quarantine station, below New Orleans, there have arrived, during the quarantine season, seventy-three vessels from foreign ports. Of these, forty-seven were inspected up to June 30 under the supervision of the National Board of Health, and during July the remaining twenty-six were inspected under the supervision of the sanitary council."

"Of these eleven were from ports infected by yellow fever at the date of departure, and three of them—namely, the *Berna*, July 3, the *Merchant*, July 16, and the *Buteshire*, July 17, arrived with cases of yellow fever on board. Among the remaining vessels one was found to have had yellow fever on board in Havana last season, and in seven other cases it was probable that they had been infected at some previous time."

"The sanitary condition of the vessel, crew, cargo, and passengers in twelve cases was good, and in the remaining vessels, with the exception of the *Berna*, *Merchant*, and *Buteshire*, which were infected, the report of the inspector was qualified. In all cases the vessels were subjected to a thorough general cleansing, purification of bilge, hold, etc., and disinfection with carbolic acid and copperas, and the cargoes were fumigated with sulphurous acid gas."

"Coffee ships from Rio de Janeiro were either not allowed to proceed up to New Orleans at all, or only after removal of cargo and thorough fumigation of the same."

"The arrival of the *Merchant* on the 16th of July, and of the *Buteshire* on the following day, both from Vera Cruz, with yellow fever cases, finally led the governor of Louisiana, on the 20th of July, to recommend to the Louisiana State Board of Health that no infected vessel be permitted to enter the Mississippi river, and that all infected vessels then at the quarantine station be removed out of the river at once, assigning the reason that their presence at that point had practically rendered the station an infected port, in dangerous proximity to New Orleans, and threatened a stupendous calamity to the Mississippi. At its meeting on July 23, the Board discussed this communication, and, on the 24th, Gov. McEnery issued a proclamation enforcing his recommendations, and declaring non-intercourse between Louisiana and Vera Cruz, Rio de Janeiro, Havana, and other infected ports."

"The infected vessels have been removed to Ship Island, and, for the first time in a number of years, the lower Mississippi is freed from the menace arising from the admission of yellow fever ships to the river."

"Immediately upon receipt of information of this action, the

request, previously referred to Governor McEnery to permit the Sanitary Council inspector to remain at the quarantine station, was withdrawn by telegram, and the inspector was relieved from duty as soon as the infected vessels and yellow fever patients were removed."

"It is remarked in this connection that while the National Board of Health and the Sanitary Council have been advocating for the past four years the exclusion of infected vessels from the Mississippi during the dangerous season, and the use of Ship Island as a refuge station for such vessels, the necessity for absolute non-intercourse has not been recognized. The plan proposed by these two bodies contemplated the maintenance of an inspection station at or near Port Eads. All vessels entering the river would here be subjected to a rigid examination. Those found to be infected would be compelled to go to the Ship Island refuge station; healthy vessels from infected ports would be subjected to such treatment as would render it safe to allow them access to New Orleans; while all others, if found in a good sanitary condition, would be passed without detention. In this way it was believed the public health could be properly protected without inflicting such serious injury to the commercial interests of New Orleans as a non-intercourse quarantine necessarily entails.

The executive committee of the Council, however, does not feel warranted in criticising any action which promises to secure the safety of the valley from an invasion of yellow fever.

During the month forty-five steamboats and other river craft, with an aggregate capacity of 44,219 tons, and carrying 2,532 officers, crews and passengers, were inspected at New Orleans, and furnished with the certificates of the Sanitary Council. On the Illinois Central and Louisville and Nashville railroads, at the same point, 144 freight trains bound northwise, and their crews, comprising 1,194 persons, were also inspected.

At the inspection stations at Fort Adams, Miss., and President's Island, Tenn., all north-bound vessels are now inspected, as well as those plying in the local trade and those clearing from New Orleans. The total inspections for the month at these stations comprise 123 steamboats, tows, barges, etc., carrying 5,352

persons. The sanitary condition of these vessels is reported as satisfactory, and an entire freedom from illness of a suspicious nature is noted.

An aggregate of 338 ocean vessels, river craft and freight trains, together with 9,842 officers, crews and passengers, has been inspected under the supervision of the Council during the month.

I send you this as a fair illustration of the methods and animus of the Louisiana State Board of Health. Very truly yours,

JOHN H. RAUCH.

To the Editor of the MEDICAL JOURNAL AND EXAMINER,
Chicago.

MACALINA.

A new remedy has been discovered, and, by the experiments already made, it seems to equal quinine in the treatment of malarial fevers. This new remedy is macalina, an alkaloid extracted by Dr. Doudé from the bark of a tree known in Yucatan as yaba. According to Dr. Rosado, the sulphate of macalina cures intermittent fevers in the same dose as quinine, and he prefers it to the latter for its surety and absence of symptoms (it only produces transient pains in the abdomen), and for being almost tasteless, and easily taken by children. It is to be hoped that the experiments will be continued, so as to ascertain if macalina can be considered equal to quinine.—*Il Morgagni*.

ANTISEPTIC CATGUT.

According to Kocher a truly antiseptic cat-gut is prepared by placing it for twenty-four hours in pure juniper oil, and then kept in 95 per cent. alcohol. This catgut is not absorbed before the sixth or seventh day. If the cat-gut is desired flexible, and not rapidly dried when exposed to the air, it is to be placed in glycerine for a day before being conserved in the alcohol.—*Lo Sperimentale*.

Reviews and Book Notices.

ARTICLE XII.—THE GYNÆCOLOGY OF THE ANCIENTS. By EDWARD W. JENKS, M.D., of Chicago, Ill. Translated from the English by PROF. DR. LUDWIG KLEINWACHTER.

The leading gynæcologists of America came together in the year 1876 and resolved to form a gynæcological association, whose workings might extend throughout the entire country.

As is usual in North America, the conception is followed by speedy perfection.

The association was organized, and it was resolved that annual meetings should be held in one of the larger cities and its proceedings published in a yearly volume known as the Transactions of the American Gynæcological Association. Six of these volumes have already appeared. They are an ornament to our professional library, interesting in the highest degree, and containing such valuable writings as might be expected from the coöperation of such men as Washington Lemuel Attlee, Fordyce Barker, Nathan Bozemann, William H. Byford, James Chadwick, Thomas Addis Emmet, Geo. Engelman, William Goodall, Charles Carroll Lee, William Lusk, Paul Mundé, Emil Nöggerath, Theophilus Parvin, Randolph Peaslee, and the renowned J. Marion Sims, T. Gaillard Thomas and others whose literary names are everywhere known.

Aside from the style and manner of the literary handling of matter (in which every nation differs), one encounters an essential difference between the Transactions and our similar literary productions. In this, each volume, up to date, contains as a leader a medical history or geographical work.

The earlier volumes give a full biography of Simon (of Heidelberg), Charles Buckingham, Randolph Peaslee, Marmaduke B. Wright, and others.

The fifth volume contains Engelmann's great work, with many neat illustrations, upon Aid During Chidbirth, by different writers of our own continent, and the following, sixth, a very noteworthy production from the pen of Edward W. Jenks, of Chicago, Ill., entitled "The Practice of Gynæcology in Ancient Times."

Here, as in many other respects, are we humiliated by the celebrated hyper-realistic North American.

With us the literature of the day, with one exception—namely, Virchow's Archives—holds aloof from any history of medicine, as well as medical geography; indeed, are often directly antagonists of same. We have, then, to thank principally the worthy manager of this journal that we cannot even now be made, in this matter, the reproach of other nations. We did neglect the history of medicine entirely.

We would not be so surprised, if the English or French cultivated the history of medicine, for these two nations possess more than a thousand years of glorious history, and one of such a nature as to inspire historical research.

But the North American is deficient in a national ancient culture, and likewise in ancient history, and in spite of this we see them encouraging and advancing the history of medicine. I consider this an indication worthy of notice. It is clear that these people are possessed with a desire to know what the ancients knew and did in order not to become bigoted—in other words, to seize completely upon the true spirit of medicine, whereby the so-called exact research became possible.

ARTICLE XIII.—A TREATISE ON THE MATERIA MEDICA AND THERAPEUTICS OF THE SKIN. By HENRY G. PIFFARD, A.M., M.D., Professor of Dermatology, Medical Department, University of the City of New York. 800, cloth, pages 851. Wood's Library of Standard Medical Authors, Feb., 1881.

This book possesses the advantage of an American authorship and will escape the appellation of literary theft, which applies to

a large proportion of the cheap medical works published now-a-days. The first part (pp. 117) contain the drugs, which are of use in the treatment of skin diseases, arranged in alphabetical order, and very methodically. First is given the effect of a drug on the integument when taken internally, then when applied locally, and thirdly, the diseases in which its use has been recommended, with reference to the page where such diseases are treated of in the second part. About 414 drugs are mentioned in the first part.

Part II. is devoted to the Therapeutics of Skin Diseases. After giving a short description of the disease and its etiology, the author enters into its methodical treatment at length, and gives in an appendix at the end of each article a list of all the medicines used in that disease, and references to part I.

A bibliography of 210 authors is contained in this volume, together with a formulary of over a hundred and forty prescriptions, all of which are expressed in the metric as well as in the old systems.

The favor with which Dr. Piffard looks upon homœopathy is traceable in his book, where he recommends in eczema the hundredth part of a drop of the tr. of *Rhus Toxicodendron*.

However, we are of the opinion, that although this treatise is inferior to the classical works of Duhring or of Hyde, yet it has an aim of its own in calling the attention of the readers to treatment, and will give the busy practitioner more information than a number of compendia issued within a few years past for the purpose of ready reference.

H. D. V.

ARTICLE XIV.—LEGAL MEDICINE. By CHARLES MEYNOTT TIDY., M.B., F.C.S., Master of Surgery, Professor of Chemistry and of Forensic Medicine and Public Health at the London Hospital; late Deputy Medical Officer of Health, and Public Analyst for the City of London, etc., etc.

Volume I.—Evidence; The Signs of Death; Identity; The Cause of Death; the Post-Mortem; Sex; Monstrosities; Hermaphroditism.

Volume II.—Expectation of Life; Presumption of Death and Survivorship; Heat and Cold; Burns and Scalds; Lightning; Explosives and Combustibles; Starvation, its Treatment. 8vo., cloth, pp. XXII-314 and XII-298. November and December issues of Wood's Library of Standard Medical Authors for 1882.

It is impossible to give more than an opinion of the value of this work, the third (and last?) volume being announced for another year's issue. This will appear more or less an abuse to some subscribers, and while it may forcibly retain some old ones, it may be cause that somebody will be deterred from subscribing to the series of 1883, which is thereby linked to that of the precedent year.

In the present volumes, medical jurisprudence has received an amplification which the intricacies of the law, as practiced in our days, necessitated. The work of the author is methodical, and, strange to say, his style is highly interesting, in spite of the dreariness of the subject. It would also appear that the basis of these lectures was laid by a colleague prematurely lost to the profession. However that may be, no one would look upon these volumes as a mere compilation, still less as the outgrowth of a few years of study, and it is very likely that they will become standards of medical jurisprudence. No one will regret his subscription to the library on account of these volumes being thrown in.

H. D. V.

ARTICLE XV.—A TREATISE ON THE PRACTICE OF MEDICINE, FOR THE USE OF STUDENTS AND PRACTITIONERS. By ROBERT BARTHOLOW, M.A., M.D., L.L.D. Third edition, revised and enlarged, 800, cloth, pp. xx-918, New York; D. Appleton & Co., 1882.

The Ideal Practice. Bartholow has accomplished in this work a result of which the whole profession had despaired. Decade after decade, editions after editions of antiquated works had rained on the profession of medicine in the United States, the treatment advocated in which would make a student smile. After a while it was thought that a translation of a standard foreign

work would supply something new, and it did: more infusions and powdered drugs and teas than our western drug-stores contain found their way through Ziemssen's *Cylopædia* into the students brains. It was a great relief to find that Prof. Bartholow possessed good common sense besides erudition, but for this very reason, his work is above criticism. It is one of those treatises the happy possessor of which would wish that he had at patent on, so that none of his neighbors could read it and learn. It is no wonder to us that Bartholow's practice has been left out of several medical colleges' catalogues; most likely its introduction in them would oblige some old professors to take many lessons of therapeutics as applied in our days. But the rapidity with which editions are exhausted is a surprise to no one acquainted with the book.

H. D. V

ARTICLE XVI.—THE ESSENTIALS OF PATHOLOGY. BY PROF. D. TOD GILLIAM, of Starling Medical College, Columbus. O. Philadelphia: P. Blakiston, Son & Co. 1883. P. 296.

In this busy era of investigation, discovery and discussion, in the ever widening fields of medical science, the immensity of the accumulation tends to discourage and confuse the young student. It is but fitting, then, that the most essential features of the science of pathology should be presented by one familiar with them, in plain, practical style—not to completely acquaint the student with the subject, but to bring its salient points within easy comprehension, increasing thus his interest in the subject. Hence the author of this work avoids in great measure the discussion of unsettled subjects, for the sake of preventing confusion in the mind of the student, and rendering more clear and distinct his conception of the generally accepted doctrines of to-day. There are thirty-three chapters in the book, treating briefly and clearly of Normal Histology, of Constructive and Destructive Processes in Disease; of Degeneration, Infiltrations, Metamorphoses, Death, Mechanical and Functional Derangements, Fever, Tumors, New Formations, etc.; with chapters on the pathology of the blood, and each of the different tissues of the human body. The general

practitioner will also find in this little 12mo. a convenient compendium of the current pathology of the day.

ARTICLE XVII.—COULSON ON THE DISEASES OF THE BLADDER AND PROSTATE GLAND. Sixth edition. Revised by WALTER J. COULSON, F.R.C.S., Surgeon to St. Peter's Hospital for Stone, etc., and Surgeon to the Lock Hospital. 8vo, cloth, pp. XXIV—393. New York: Wm. Wood & Co. 1881. July issue of Wood's Library of Standard Medical Authors.

Few authors have treated the subject to such an extent, and this book is cyclopædic in character. All the prominent writers are passed in review, their opinions analyzed, and their treatment epitomized. Litholopaxy is treated of in a chapter by itself, and is highly recommended. The surgical treatment of the various diseases is commendable throughout, but the medication advocated well represents the standing of the profession in Europe, and is not at all adapted for our more refined mode of prescribing. Such things are advocated as a large number of infusions, crude drugs, pure balsams, etc., which few patients could stomach, and very seldom is a prescription written out as it should be. This book is illustrated, printed in a clear type, and specially valuable for surgeons and practitioners who make a specialty of genito-urinary diseases.

H. D. V.

ARTICLE XVIII.—OCTAVO SERIES, STANDARD MEDICAL BOOKS: THE DISEASES OF WOMEN. By GRAILY HEWITT, M.D., F.R.C.P. Fourth American, from the last revised and enlarged London Edition. With 132 illustrations. Philadelphia: P. Blakiston, Son & Co. 1882. Two parts in one vol., \$1.50. Pp. 751.

"No subscribing nuisance is connected with this series; each volume is sold separately." This is a sample of the animosity which has sprung up between half a dozen medical publishers in this country since the Wood Library was started. The practice

of issuing paper covers is a rare thing in the medical literature of America, but it is quite common in France, and seems to naturally favor the poorer class of the profession. In the present case, for instance, a most valuable manual is placed in the hands of students at a nominal cost. THE JOURNAL AND EXAMINER had occasion once before to review very favorably this same work. Hardly any more can be said than that it is one of the best works ever written on the Diseases of Women, and answers the purpose of any other. The same can be had bound in cloth for \$2.50. The printing, the paper, and the illustrations are of the best quality. H. D. V.

INTERMITTENT FEVER TREATED WITH ELECTRICITY.

Electricity has been used by Frank, Borgini, Aldini and others; in these later times by Bossi, of Rome; by Vizioli, of Naples; by Shipulski, Krasnogladow, Deparquet, etc. Prof. DeRenzi, of Genoa, has also largely experimented with it, and has found that in the majority of cases, the fever is stopped, and frequently more promptly than with quinine. In nine cases, the author has had five complete cures, two bettering, and two with no success. They were treated with the continued and the faradaic current: the first obtained with 9 to 62 elements, and applied five to fifteen minutes along the spinal cord. The faradaic current has been more efficient than the galvanic. These experiments have confirmed the possibility of conquering intermittent fever with electricity; but so far, it has been impossible to ascertain why in some cases a rapid and complete cure is obtained, and in others an incomplete one, and what are the best means of application of electricity, and when it ought to be preferred to quinine.—*Annals Univerzali*.

THE interesting and valuable article on the Use of Lactic Acid in Diphtheria, by Dr. Lytle, was so dreadfully mangled by the printers that we republish it, and hope our readers will excuse the blunders we made in the former proof-reading.

Translations from Foreign Exchanges.

TRANSLATED BY A. LAGORIO, M.D.

ETIOLOGY OF CROUPOUS PNEUMONIA.

Drs. Griffin and Cambria, of Messina, have reported their experimental studies on croupous pneumonia. They have studied the blood in pneumonia, the liquids of cultivation of the bacillus of the blood, the sputum of pneumonia, and the action of the common irritants. From this series of observations and experiments they have drawn the following conclusions:

1st. That in the blood and in the sputum of pneumonia exists a special bacillus, different from Klebs' monads.

2nd. That the sputum of pneumonia, free of any saliva, when injected under the skin and in the trachea of rabbits and dogs, invariably produced in all a disease having the anatomical and clinical characters of acute septicæmia, always with a deadly result, and the blood of these animals, taken many hours (33) before death, when injected under the skin of another, rapidly killed him. The deadly action of the sputum was not modified by washing the mouth with an alcoholic solution of salicylic acid.

3rd. That while the saliva of pneumonia rapidly killed rabbits, in dogs it only produced an abscess in the place of puncture.

4th. That the defibrinated blood of pneumonia, whenever injected in the peritonæal cavity and in the trachea of rabbits and dogs, produced a variable elevation of temperature, less significant in the dogs, but never any form of pneumonia.

The fibrine of this blood, injected under the skin, killed a rabbit, but produced no action in a calf.

5th. That the liquids of various cultivations of the bacillus of the blood of pneumonia, injected under the skin and in the trachea, when this bacillus was in the various stages of vegetation, produced irregular elevations of temperature in rabbits and dogs, but no alterations of any sort in the lungs, nor in other organs. That the elevations of temperature were stronger in the rabbits when the liquid was of first cultivation, and the blood of these rabbits, containing the same bacillus, when injected in others, produced the same elevations of temperature. One drop of this liquid of cultivation, injected in the anterior chamber of the eye of a rabbit, produced a strong local suppurative inflammation, and death by septic infection.

6th. That the bacillus of the system and of the blood of pneumonia is transmitted always to inoculated rabbits and dogs, in whose blood it can be found, in a moderate quantity during life, and increases after the death of the animal. But this bacillus, transmitted in the blood of the animals, does not produce a croupous pneumonia, and its existence in the blood of pneumonia is to be considered a secondary fact; it is probably introduced in the lungs of pneumonia patients by the air, is rapidly and abundantly multiplied, and passes into the blood.

7th. That strong ammonia injected in small doses through the trachea in the lungs of dogs, and especially if previously infected with liquids of cultivation and with the blood of pneumonia, invariably produce a form of croupous pneumonia, and always lobar if the animal lived for a few days. A precedent infection with materials derived from pneumonia does not establish any predisposition in the animal; therefore the ammonia does not act in these cases as a cause simply occasional, but is capable, *per se*, of producing a true lobar croupous pneumonia. In our judgment, croupous pneumonia is not a disease of infection.—*Giornale Intern. delle Scienze Mediche.*

ALBERTONI—RESORCIN.

Resorcin, having a coagulating property for albuminoids, is recommended as a caustic for diseased tissues. When crystallized

its cauterizing action is as strong as nitrate of silver, without pain, and without leaving colored cicatrices. Weak solutions are used to medicate wounds. It is employed in solution as an injection in diseases of the bladder. A solution of five per cent. of resorcin, used two or three times, is sufficient to cure any acute vesical catarrh, most often caused by gonorrhœa. In chronic conditions, the strength of solutions is 5 to 10 per cent.

Cutaneous affections are frequently cured by its use, as erysipelas, pemphigus, rupia, lepra. Resorcin is extremely useful in poisoned wounds by animals, or in lesions by instruments infected with cadaveric poisons.

Concentrated solutions can be employed to wash suppurative cavities and canals of the body, as the vagina; the œsophagus; the antrum of Highmore; the sinus frontalis.

Resorcin in a form of ointment (resorcin-glycerine-vaseline) acts with rapidity and surety in syphilitic infiltrations and ulcerations, in soft or hard sores, and in phagedenic ulcers of the genital apparatus.

It is used in gastro-enteritic affections, as cholera infantum, septic enteritis, dysentery, typhus. Audeers recommends resorcin in a solution 1.5 per cent., as a wash in chronic diseases of the stomach, because it is less poisonous than phenol and salicylic acid, and is hemostatic.

The antipyretic action of resorcin has been well studied by Lichteim and by Jänicke. According to Jänicke, doses of 0.50 every half hour, to 4 grams, lower the temperature from 1 to $1\frac{1}{2}$ degrees C., which lasts two or three hours without causing any disturbance. The lowering of the temperature rarely lasts more than two hours; sometimes the temperature rises higher than the primitive limit.

To prepare resorcinated gauze, take 15 grams of resorcin, 450 grams of alcohol, 150 grams of glycerine, to every kilogram of gauze. The resorcinated lint is prepared by taking 30 grams of resorcin, 100 grams of alcohol, and 70 grams of glycerine, to a kilogram of lint. In cases of cholera infantum, it is given at a dose of 10-50 centgr. in an infusion of chamomile; as an antipyretic to adults, at a dose of 2-5 grams in a day.—*Lo Sperimentale*.

STATISTICS OF RESECTION OF THE STOMACH.

Ceccherelli has gathered in various journals the cases of resection of the pylorus executed up to to-day, and has reported the following, their authenticity being ascertained :

- 1st. Torelli—For wounds of the stomach, cure.—*Bulletino delle Scienze Mediche d' Bologna*, page 556, 1878.
- 2nd. Cavazzani—For a tumor in the walls of the stomach, cure.—*Gazzetta Medica Italiana, Provincie Venete*, 1879.
- 3rd. Pëan—For carcinoma of the stomach, death.—*Gazette des Hôpitaux*, 1879.
- 4th. Rydzgier—For carcinoma of the stomach, death.—*Przegląd Lekarski*, 1880.
- 5th. Billroth—For carcinoma of the stomach, cure ; death after four months from gangrenous peritonitis. This was the first case, and was much talked about.
- 6th. Billroth—For carcinoma of the stomach, death.
- 7th. Billroth—For carcinoma of the stomach, death.
- 8th. Wölfler—For carcinoma of the stomach, cure.
- 9th. Billroth—For carcinoma of the stomach, cure.—*Wiener Med. Woch.*
- 10th. A Surgeon of Arras—For a tumor of the stomach, death.—*Revue des Sciences Médicales*, vol. xvi, page 742, 1880.
- 11th.—Langenbeck—For carcinomatous stricture of the pylorus, death.—*Central-blatt für Chirurgie*, No. 20, 1881.
- 12th. Bardenheuer—For carcinoma of the stomach, death.—*Die Drainirung der Peritonealhöle*, 1881.
- 13th. Leuenstein—For a tumor of the stomach, death.—*Centralblatt für Chirurgie*, No. 29, 1882.
- 14th. Lücke—For carcinoma of the stomach, death.—*Deutsche Zeit. für Chirurgie*, 1882.
- 15th. Rydzgier—For a tumor of the stomach, cure.—*Central-blatt f. Chir.*, 1882.
- 16th. Hahn—For ectasis of the stomach, death.—*Centr. f. Chir.*, 1882.
- 17th. Czerny—For a tumor of the stomach, cure.—*Arch. f. Klin. Chir.*, 1882.
- 18th. Czerny—For carcinoma of the stomach, cure.

- 19th. Langenbeck—For carcinoma of the stomach, including also the stomach, death.—*Centr. f. Chir.*, 1882.
 20th. Gussenbauer—For carcinoma of the stomach, death.
 21st. Esmarch—For ulcer of the stomach, cure.—*Petersen Inang. Dissert.*, Kiel, 1882.
 22nd. For carcinoma, death.—*British Med. Journal*, 1882.
 23rd. Caselli—For partial stenosis of the orifice of the pylorus caused by carcinoma, death.—*L'Italia Medica*, 1882.

In these twenty-three cases collected by the author, nine cures are numbered; it is valuable to notice that death in the most cases occurred in a few hours after the operation by shock. In the last surgical congress held in Berlin, Billroth said that the greatest danger resided in the casual lesion of the pancreas. He also said that better results will be obtained in cases of dilatation of the stomach, and pyloric ulcers, than in carcinomatous stenosis of the pylorus.—*Lo Sperimentale*.

SULPHO-TARTRATE OF QUININE GLYCYRRHIZATED WITH COFFEE.

Dr. C. Pavesi says that in therapeutics every novelty provokes enthusiasm, and often the majority of physicians receive with benevolence any unusual remedy, provided it be *in mode*, and is eulogized by the journals. He does not love the empirical multiplicity of remedies, nor the poetry of some curative methods which fall before the criticism of experience. Frankly speaking, the sulphate of quinine, of all the alkaloids of the barks, is the oldest, and the most used in the medical practice of all nations. Considering that for its intense bitter taste it cannot be administered to many persons, and especially to children, he has masked the bitter taste with licorice root and toasted coffee, without in the least subtracting its precious therapeutical effects. The following is the method of preparation:

R. Sulphate of quinine, parts	1
Tartaric acid, "	1
Powd. of licorice root "	5
Powd. toasted coffee, "	25
Water, Q. S.	

The coffee and the licorice are mixed with sufficient hot water; the obtained liquid, limpid and brown, is evaporated to a syrupy

consistency; then are added the sulphate of quinine and the tartaric acid, well mixed and dissolved; and again the whole is evaporated to dryness by slow heat so as not to alter the aroma of the coffee and the other immediate extractive principles. Being hygrometric, is kept in ground bottles. *Properties*: The sulpho-tartrate of quinine glycyrrhized with coffee is a brownish powder resembling slightly coffee; it is of a bitter-sweet taste not disgusting, soluble in water. Tested with the proper re-agents the quinine is detected unaltered. It is to be administered in all the morbid affections, where quinine is indicated, especially to children. The syrup of sulpho-tartrate of quinine with licorice is prepared by dissolving in the decoction of coffee and licorice fifty parts of sugar and one part of sulphate of quinine and tartaric acid; then is evaporated by slow heat to the consistency of a thick syrup. It has a sweet taste, slightly bitter, very convenient for children. Every twenty-three grams of syrup contains about half a gram of sulphate of quinine, and as much tartaric acid.—*Gazzetta Medica di Torino*; *Il Morgagni*.

IODOFORM IN LUNG AFFECTIONS.—Prof. M. Semmola again calls attention in the *Giornale Internazionale delle Scienze Mediche* to the good effects of iodoform obtained in caseous broncho-alveolitis. He does not pretend to have discovered a specific for incipient tuberculosis, or for any caseous process of the lungs. He has been the first to advocate iodoform in these affections, and having obtained most excellent results, he warmly begs his colleagues to try it. According to his clinical experiences, the treatment with iodoform exercises in caseous broncho-alveolitis, or in incipient phthisis, the following effects: The expectoration diminishes rapidly and considerably. At the same time the cough lessens—becomes less distressing, probably on account of the local anæsthesia produced by the remedy. The products which exist in the bronchi or in the cavities are disinfected. The fever progressively lessens, for the remedy disinfects and diminishes the putrid substances, which become absorbed by the softened parts. There is also a bettering of the local process, and in some cases is noted a beginning of a cure. Evidently the general state of the patient is improved, and in

cases of caseous broncho-alveolitis in the first stages, a complete cure can be obtained.

Equally good results have been produced in bronchial catarrh, asthma, bronchiectasis, etc., all of which have been vouched for by Dr. Ciaramelli, Prof. Bufalini and Dr. Rumun, who have published them in the *Siècle Médical*. The daily dose is 5 centigr. to 40-50 cgm., and is to be regulated according to the tolerance of the digestive organs and the nervous system. The pillular form with the extract of gentian is to be preferred. Dr. Semola gives small doses every hour. When the gastro-enteric apparatus is not in good condition, the iodoform is inhaled with the essential oil of turpentine three to four times a day.

COBWEB IN INTERMITTENT FEVER.

Oliva has published in the *Gazette Médicale de Seville* statistics of twenty-six cases of intermittent fever of a quotidian and tertian type, cured with the tincture of cobweb. This medicament is prepared in the following manner: Having gathered a quantity of cobwebs, it is shaken sufficiently to separate the powder that it contains. This powder, of a grayish color, without smell, tasteless, is insoluble in water, and little soluble in alcohol. It is just the alcoholic solution which is used. The author has administered it frequently at a dose of two grams to adults, and of a gram to children. A boy seven years old took thirty grains of it in a few days, without experiencing the least phenomenon that could be attributed to the remedy. According to Dr. D. Delgrado y Ramos, the dose of three grains has produced symptoms of gastric intolerance and a marked cephalalgia.

Generally, two doses are sufficient to arrest the paroxysms. One hundred and nineteen observations have been published, and from these the following conclusions can be drawn: That the cobweb is an agent capable of curing palustral fever of a quotidian or tertian type. It is of no benefit in the quartan form. That when administered in a dose of two grams to adults and of one gram to children, it usually stops the fever at the second paroxysm. That its action being less rapid than that of sulphate of quinine, it should not be given in pernicious fevers. That its want of taste ren-

ders it of more easy administration than quinine, especially to children.—*Il Morgagni*.

RESORCIN IN DIPHTHERIA.—Dr. Wm. Lee said he had recently had ten cases of diphtheria in the vicinity of Perkin's Square, the oldest subject being six years, in which he had found the following prescription very efficacious, a small quantity being placed upon the back of the tongue every half hour: *R.* Resorcin., gr. x; acid. tannic., $\mathfrak{J}$ i; acid. salicylic., $\mathfrak{Z}$ ss; acid. boracic., $\mathfrak{J}$ ij; sulph. flav., $\mathfrak{Z}$ ss. *M.* It is remarkable how rapidly the membrane becomes softened by it. An emetic is also useful because swallowing of the membrane causes irritation of the stomach. He objected to mopping the throat, which he thought did more harm than good by abrading the tonsil. He also gives the resorcin internally, as: *R.* Resorcin, gr. xxiv; aquæ, $\mathfrak{Z}$ vi. *M. S.* Tablespoonful every four hours for an adult. It acts as a tonic, but he also gave whisky and food. The cases were very malignant. In one the throat trouble disappeared, ear-ache set in and the child died of otitis media.—*Maryland Med. Journal*.

AMERICAN ACADEMY OF MEDICINE.—The annual meeting of the Academy will be held at the New York Academy of Medicine, 12 W. 31st street, New York, on Tuesday, October 9, (three o'clock P. M.), and Wednesday, October 10, 1883.

RICHARD J. DUNGLISON,
Secretary.

THE present number contains an account of the fatal illness of the promising young Dr. Frank L. Rea, and also contains his maiden contribution to medical literature.

Selections.

REMARKS ON INTRA-PELVIC INFLAMMATION IN THE CHRONIC FORM.—By W. H. BYFORD, M.D., of Chicago, Professor of Gynæcology, Rush Medical College. (Presented to the Section on Obstetrics and Diseases of Women of the American Medical Association.)

The terms parametritis and perimetritis are erroneously supposed by many to include the whole subject of intra-pelvic inflammation. These terms are misleading, because as now often used they present to the mind the idea that all cases of inflammation not confined to the uterus must belong to one or the other of these.

Actual observation teaches the important fact that perimetritis and parametritis generally exist together, and that they are usually complicated with inflammation of the uterus, and not infrequently the ovaries and fallopian tubes are involved. When we use the terms perimetritis and parametritis, if anything like a definite diagnosis is made we ought to understand that the greater *intensity* of lesion is manifested in one of the tissues, but that inflammation extends to the others also. It is apparent, therefore, that to determine the tissue in which the inflammation is located is often difficult, simply because uncomplicated cases are extremely rare.

The complexity of the lesions of the pelvic organs and tissues might be inferred from the almost absolute unity of the vascular and nervous supply, and the fact that the genito-spinal center is the common controlling influence.

I make these general remarks upon the pathology of intra-pelvic inflammation, as an introduction to what I have to say of the

various forms of its manifestation in different organs and tissues within the pelvis.

The more obvious conditions of chronic parametritis are :

First.—Suppuration, or chronic pelvic abscess, located more frequently, but not always, in the broad ligament, the consequence of cellulitis. Chronic purulent accumulations are often found also behind the uterus, and are doubtless the result of local peritonitis.

The chronic pelvic abscess is generally the sequel of acute inflammation, and attains chronicity from the imperfect evacuation of the pus after acute inflammation has terminated in suppuration. The discharge in these cases may be continuous, but the suppurating cavity, in not being completely evacuated, is consequently not obliterated.

The evacuation is deficient sometimes because the outlet is through a tortuous canal; at others because the termination of the canal is in the rectum or bladder. The muscular fibers of the walls of these receptacles, after a certain amount of pressure is taken off by partial evacuation, contract around the opening, and do not yield until the accumulation renews the pressure sufficiently to overcome their resistance. These processes of partial evacuation and accumulation are repeated indefinitely. Again, temporary interruption of the purulent discharge may be caused by the distal extremity of the evacuating tube being higher than some portion of the suppurating cavity.

If the abscess is located in the connective tissue, the elasticity of that tissue will very materially diminish the size of the suppurating cavity each time the evacuation takes place, and eventually may entirely obliterate it. It does not always do so, however. The sufferings experienced by the patient in these cases consists in pyæmic and septic symptoms, resulting from the resorption of the pus and debris of decomposing material contained in the cavity. While the vital energies of many patients will sustain them until the process of evacuation is completed, others will die from exhaustion.

The remedy in such cases is found in surgery, and consists in making a more direct outlet through the vagina, large enough to at once completely evacuate the pus and enable the surgeon to

cleanse and disinfect the cavity. Where the evacuating canal is tortuous or too small it may sometimes be dilated with instruments until the cavity can be evacuated and washed out. Where the pus is accumulated in a sac formed in the peritoneal cul-de-sac behind the uterus, the difficulty will not be so easily overcome by enlarging the opening, as the pyogenic cavity is not surrounded by elastic tissue, as in the broad ligament. It will, as a consequence of this latter fact, require a longer time to fill up by granulation. In such cases we may hasten granulation by stimulating the cavity with injections of a weak solution of permanganate of potash, swabbing it out with iodoform or some other stimulating remedy. A cavity situated in this position will bear such stimulation better than one situated in the broad ligament. In cavities thus located we will often find decomposing coagula the remains of a hemothecle, the most common origin of abscesses in this part of the pelvis.

The suppurating variety of intra-pelvic inflammation may, however, be primarily chronic, and never rise above that grade.

In such cases the inflammation persists for several years. A considerable quantity of pus is formed without hectic or other symptoms of absorption, save a general feeble state of health. In these indolent abscesses the pus is formed and remains enclosed in the cavity for a very long time, with, in fact, very little tendency to evacuation. I saw one case of this kind in which I know from observation that pus was retained for three years. Upon first seeing the patient I was so well assured of the presence of pus in the right broad ligament that I proposed to puncture it. The patient, however, declined, and, residing in a distant city, went home. Three years afterward I made an opening in it, and removed a quantity of dirty putrid sero-pus. The patient was then in an advanced stage of phthisis, and died in a few months.

Another case I saw with Dr. T. D. Fitch. The patient assured us that the tumor had been discovered seven years before by her medical attendant, who told her she had cellulitis of the broad ligament, which had already suppurated. There were eight ounces of the same thin pus, as in the former case.

A cavity that has contained pus for so long a time has ceased to be pyogenic; its walls are thin and yielding over a large surface, and

when evacuated has no tendency to fill up again. These cases are sometimes connected with the tubercular diathesis.

Second.—Chronic parametritis is often met with when there is a decided tumefaction—in one of the broad ligaments, more frequently than otherwise—the remains of an acute attack, and, when not noticed or attended to properly, is a latent focus of phlogosis that may easily be elevated into the acute grade. We frequently meet cases of this kind among poor patients, who are obliged to exert themselves more than is compatible with the process of resolution. The consequences are that the woman has repeated returns of acute attacks until suppuration takes place. Sometimes in these or even more favored patients injudicious thoroughness and earnestness in an examination to ascertain the exact condition of the patient develops an acute inflammation that inflicts fearful suffering, and perhaps cripples the patient for life. Or, again, without sufficiently careful examination to ascertain the existence of this nodule of inflammation, irritating applications are made to the uterus, or a pessary is introduced that presses upon the locality of the effusion, or the womb is lifted high enough to make traction upon the diseased ligament, to give origin to acute inflammation. When the tumor is small, or in some remote part of the ligament, these mistakes are very liable to occur. There is no doubt also that in numerous instances these effusions are primarily the results of chronic inflammation, and have for their origin causes operating less violently. After the absorption more or less completely of the exudate in such cases, the broad ligament may be left thickened, rigid, shortened and irritable for a long time, and become the nidus for an acute attack.

Careful manipulation will enable us to discover any of these conditions without doing damage. They should always be the object of treatment, and removed before treatment for chronic metritis or replacement of the uterus is safe or justifiable.

The proper local treatment is hot-water injections and counter-irritation.

The general management is of the first importance, and consists of alteratives, tonics, feeding and rest. We should expect and require a long course of treatment for the cure of cases of this kind.

Third.—Chronic local *peritonitis* may exist (either as a *separate*

disease or a complication of cellulitis, ovaritis, and salpingitis) in the retro-uterine *cul-de-sac*, and over the broad ligaments retaining a displaced uterus in a fixed, retroversed or retroflexed position. The fixed position may be maintained by a somewhat solid cohesion of the opposed surfaces of the peritoneal covering of the uterus and the posterior lining of the Douglass pouch, or by the extension of bands of false membrane that permits of limited motion. When associated with general chronic pelvic inflammation it is but one item, is obvious and easily detected; but when local peritonitis is the only inflammatory condition it may require much care to diagnose it. When I find the uterus turned backward and resisting reasonable force, I suspect this form of chronic inflammation, and if manipulation for the purposes of restoration gives the patient much pain, I am confirmed in such suspicion. Enlargement of the uterus makes that organ, to a certain extent, difficult of replacement, and attempts to do so will generally cause pain; but even in such a case the presumption is that there is contiguous inflammation, and all the cautions to avoid aggravating that condition should be observed. An examination per rectum will give us valuable information as to the presence of retroversion and local peritonitis. By passing the finger through the rectum up the posterior wall of the uterus we will ascertain the condition of the peritonæum as to sensitiveness. With the evidence we may thus gain, and by gentle attempts to move or replace the uterus, we can make a pretty definite diagnosis. This inflammation may also exist in the *cul-de-sac* without the malposition of the uterus; in this case the tenderness behind that organ will be sufficiently diagnostic.

Sometimes we find local inflammation limited to the vesico-uterine reflexion of the peritonæum, which may interfere with reposition from anteflexion or anteversion of the uterus. In such cases we will find any effort to move the uterus attended with pain, and there will generally also be vesical irritation of an absolute character.

The discovery of peritoneal inflammation in however slight a degree should be a matter of caution to us against free manipulation for any purpose, and when complicating displacements, subinvolution or chronic inflammation of the uterus should be the main subject of our attention until entirely removed. I am quite sure

that the lack of sufficient care in this particular has been the cause of much needless suffering.

This remark, I think, is especially applicable to efforts at replacements of the uterus when that organ is retroverted or anteverted. I would therefore emphasize the direction, *not to try to replace* the uterus when such attempts give the patient decided pain. Counter-irritation, hip baths, and large tepid water injections are the main items of local treatment, while the general consists of alteratives, rest and tonics. The latter is of special importance. In many cases nourishment will be more valuable than medicine, as a large number of these patients are profoundly anæmic.

Fourth.—Another condition which accompanies a great number of cases, is inflammation of the ovaries and fallopian tubes. The inflammation of the ovary and tube is not often completely isolated, but is a complication of a more diffuse lesion of the broad ligament, including most of its structures. When ovaritis and salpingitis, one or both, are the only manifestation of existing inflammation, and stand apparently alone, there will be a history of preceding inflammation of the surrounding tissues.

The most important, as well as the most frequent of lesions, are indurated deposits of lymph, rendering the ligament rigid and deformed, and false membranes or trabeculæ that fix the ovary especially, and sometimes surround it in such a way as to constrict the nervous and vascular apparatus.

The ovary thus embraced in semi-organized exudation, if its structure is not completely destroyed, is so mutilated that its functions are greatly deranged, and performed with such difficulty as to cause intense local and general suffering.

According to Mr. Lawson Tait, the fallopian tubes are often the seat of chronic suppurative inflammation, which accompanies and outlasts the chronic inflammation of the ovaries. Mr. Tait regards the disease of the fallopian tubes as a more important factor in the reflex and local sufferings, as well as menstrual derangements, than that of the ovaries. While the position that the morbid condition of the fallopian tubes produces greater menstrual disorder than disease of the ovaries is a subject of controversy, it must be admitted that diseased tubes have a share in causing some of them at least, and I think Mr. Tait is right in

concluding that in cases of oöphorectomy it is quite as necessary for the relief of the patient to remove a diseased fallopian tube as an unsound ovary. This is not, however, admitting that the tubes in a healthy condition have any direct effect in exciting or in any way regulating the menstrual flow. It has long been a demonstrated fact that inflammation in the broad ligament, and other portions of the pelvic tissues, gives rise to pain during menstruation and causes general hystero-neurosés.

The symptoms of inflammation situated in the ovaries and fallopian tubes are, to a great degree, like those caused by disease of the uterus and perimetric tissues. If there are any symptoms more than ordinarily distinctive of chronic ovaritis it is the suffering during the menstrual period, or the diminution or complete suppression of the menstrual flow.

Sometimes, indeed, connected with ovarian inflammation, there is complete amenorrhœa without any suffering at the periods, or any great amount of derangement of the general health. Gynæcologists not unfrequently meet with cases like the following, viz.:

A young lady (27 years of age) at the age of 20 had a severe attack of pelvic inflammation that continued about three months, and, after its subsidence, for several months longer she was the subject of moderate pelvic symptoms.

When entire immunity had come about she observed that her menstrual flow was very much reduced in quantity.

For three years she enjoyed a fair degree of health and was able to exercise her vocation as a teacher with her usual comfort. At the end of that time, from exposure during severe exercise, she was again attacked with symptoms of acute pelvic inflammation, in all respects, so far as she could remember, similar to the first. From the inception of the last attack to the present time the menses have been entirely suspended, and yet she is now in the enjoyment of robust health.

From the history of this case I think we can fairly infer that both ovaries were the subject of inflammation of such a character and degree as to damage their structure sufficiently to render them incapable of performing their functions.

More frequently, however, the stroma is not so greatly changed ;

then the functions of the ovaries are performed with great difficulty, and attended with local pains and extensive and intense reflex suffering. To the symptoms of the latter condition the term ovarian dysmenorrhœa is correctly applied.

Rest, local depletion—in the earlier stages—and alteratives are the proper treatment. As the symptoms become chronic we may often derive much permanent good from the effects of one or more setons over the seat of the disease. In some of them the disease is so obstinate and the suffering so great as to justify the removal of the ovaries and fallopian tubes.

Fifth.—We may have cases of slight diffuse, or circumscribed phlogosis or hyperæsthetic hyperæmia, in which no exudation can be detected, and probably there are no palpable anatomical changes. In this form the nerves and blood-vessels are highly excitable because already under the influence of morbid agents that have been acting a long time upon them, but with a degree of intensity short of that condition called an exciting cause. They are in a state of predisposition.

Whether we are justified in speaking of this state of things as inflammation or not, it is quite certainly a departure from a sound condition, in a direction leading to that process. This is probably what authors mean by the term dormant or latent inflammation. It is an actual morbid condition, possessing the two elements, hyperæsthesia and hyperæmia, from which an exciting cause gives rise to the acute form of inflammatory action.

While the inexperienced may awaken acute suffering by injudicious manipulation or the employment of too strong or improper measures of treatment in some of the other forms of chronic inflammation to which I have alluded; it is this occult variety of disease that, figuratively speaking, betrays the most experienced, skillful, and cautious practitioners into methods of diagnosis and treatment that lead to attacks of acute inflammation, explosive in their suddenness and violence. There is no doubt in my mind that, in its subsidence, acute inflammation sometimes leaves behind it this smoldering susceptibility which lingers for months and even years as a menace to the unwary operator. Without the presence of this relict, or harbinger of acute inflammation, it would have been impossible for our ac-

complished countryman, Dr. George G. Engelmann, to collect so many terribly interesting cases as he reported to the Missouri Medical Society in a paper read before that body, and published in the September (1880) number of the *American Practitioner*. Many of these cases occurred in the hands of some of the most skillful gynecologists. We can not, therefore, say that they were the result of recklessness or ignorance.

Can we diagnose cases occurring under this division of the subject with sufficient accuracy to enable us to benefit by the knowledge?

Perhaps not always; but in most instances the careful practitioner will have his suspicions aroused by the history and the objective evidence generally obtainable. Judging from my own observation, I should say that the more dangerous cases were those in which this susceptibility was the result of previous attacks of acute inflammation. The history usually is one of inflammation of the pelvis and lower abdominal organs in months or years gone by. A disease, the nature of which may not have been well understood and treated, and vaguely termed inflammation of the bowels, typhoid or malarial fever.

These by-gone attacks sometimes present so few marked symptoms that their nature can not be definitely deduced from the history of them, especially when given by an ignorant patient. Most of the cases of the severe and sudden attacks, within my observation, have taken place where, it was fair to infer, this lingering susceptibility was the consequence of foregone acute attacks instead of a primary condition.

In such a morbid state, what would seem trivial exciting causes may produce terrible symptoms and disastrous consequences under even cautious management.

The untoward inflammation arising out of this susceptibility is also often the result of the too exclusive mechanical ideas entertained with reference to the management of affections of the uterus and other pelvic organs. Most of the pelvic organs lie within reach of the fingers, and instruments devised for the diagnosis and treatment of their diseases. We may thus be led to regard them as the proper subject for free manipulation, without regard to the fact that they are endowed with vital qualities. We may

not govern ourselves in our examinations sufficiently by the complaints of the patient, so much as the desire of finding every possible deviation from the natural position, size and consistence of every organ in the pelvic cavity.

Hence, thoroughness of examination in a mechanical sense is not an uncommon source of danger. In our treatment, the same preponderance of mechanical ideas leads to much mischief. A displaced uterus must be rectified by mechanical means alone, often without sufficient regard to other conditions. I have more than once seen cases where the uterus was fixed by effusion from inflammation, treated by forcible attempts at reposition.

Such attempts, I know, are recommended by men who ought to know better.

As a common practice, it would cause extensive suffering, and fail to be attended by any compensating benefits. Very few intelligent practitioners are so reckless as to disregard the actual existence of inflammation under such circumstances. But many times when the inflammation is so slight as not to give rise to noticeable effusion, and yet be attended with obvious tenderness, mechanical support is resorted to, and the patient exhorted to bear some pain for the good it will bring her to have the uterus kept in position. Such treatment is usually followed by bad results.

Now, to avoid mischief from the use of mechanical support in uterine displacements, the practitioner should consider all cases in which even slight perimetritic inflammation exists as unsuitable for the pessary. And when the sensitiveness characteristic of inflammation exists to a moderate degree, the uterus should not be repositioned. Other treatment should be instituted and persevered in until that sensitiveness is removed, before reposition and mechanical support are resorted to. The partisan advocates of the pessary may think this is unnecessary precaution; to which I would reply, that while skillful gynecologists may sometimes disregard this cautious view of the subject, and obtain tolerance of the pessary, even the best of them will sometimes do mischief enough to more than counteract the good they can thereby accomplish.

Our mechanical views as to the treatment of stenosis and flex-

ions of the uterus are apt to betray us into more dangers than those above mentioned. When this slight predisponent condition is present the use of the sponge, seatangle or other dilating tent is frequently followed by great danger ; and it should be remembered that the use of the tent causes this predisposition to inflammation, so that in the consecutive application of tents in any case the second and third become instruments of extreme danger. It is true that in some cases the patient escapes when extra precautions and skill are used, but it is also true that in other cases, notwithstanding all just precautions, terrible results follow.

Now, in all this, I desire to be understood as incalculating the idea that the most accomplished—not alone the ignorant practitioner—may occasionally produce the damaging conditions so ap-
palingly delineated in the paper by Prof. Engelmann above alluded to. Similar remarks are applicable to the use of the stem pessary, either with or without the incisions of the cervix uteri. In estimating the value of mechanical treatment of the uterus we must take into consideration these *exceptional* cases. No man is skilled enough to ignore the fact that he cannot resort to these measures without great hazard to his patient. His practice must be governed by the recognition of the *possible* consequences that may follow.

If not warned by his own observation, he should be forewarned by the researches and observations of others. I have been cognizant of numerous instances of disaster in all of the mechanical methods I have mentioned, and many deaths have resulted from the employment of some of them. These untoward cases are usually not published. They ought to be published, however, as danger-signals to warn the unwary of the hazards that beset their paths.

As the main object I had in view in writing this paper was to caution my associates against the dangers of converting a chronic pelvic inflammation into a disastrous acute form, I desire to append a summary of suggestions and inferences drawn from it.

1. The sometimes terrible effects of examinations or operations in the pelvis do not often, if ever, take place when there is not a perceptible predisposing inflammation. •

2. The inflammation may be so slight as to be easily overlooked.

3. It may be an original condition ; the sequence of an acute attack long gone by, or it may be the product of some immediately previous examination or operation, the effects of which have not subsided.

4. To avoid the dangers of acute inflammation we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain, and when she complains of much suffering desist at the sacrifice of completeness of diagnosis.

5. Complaints of much tenderness to the touch, or the use of instruments ; especially in parous women, is sufficiently diagnostic of inflammation upon which to base treatment for that condition.

6. If, with such tenderness, a thorough examination or an operation is imperative, it should be done under profound anæsthesia. There is no question, in my mind, that much less danger of ill effects is incurred in making examinations or operations on susceptible subjects, under the free use of anæsthetics.

7. Examinations or operations should not be repeated until the effects of the first have entirely passed off.

8. As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus, it should be always suspected and its diagnosis be carefully considered in all cases of metritis.

9. When chronic parametritis is present, it should be the chief, if not the exclusive object of treatment until removed.

10. It is not safe to use the sound, sponge-treatment, or intra-uterine stem when there is perimetric inflammation.

11. It is especially dangerous to replace a displaced uterus, when it is bound down by inflammatory adhesions, by any means which will overcome its fixedness by force.

12. The use of pessaries, or supports of any kind which find their lodgement in the pelvis, is generally followed by disastrous consequences when there is even slight primitive inflammation.

13. All local treatment of the uterus must be conducted with the greatest care in all cases where this complication is present.
—*Journal of the American Medical Association.*

SOME OBSERVATIONS ON THE SALIVARY DIGESTION OF STARCH BY INFANTS. BY J. M. KEATING, M.D., VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, AND LECTURER ON DISEASES OF WOMEN AND CHILDREN. (Read June 6, 1883.)

Recently, in a late English work, I find the following: "During the first few months farinaceous food of every kind should be avoided, for the child's stomach (?) cannot digest it. Until the third month, or even later, no saliva is secreted, and without this floury foods cannot be assimilated." (Management of Infants, etc., by Howard Barrett.) This idea is so prevalent, and most of us have adopted the statement as representing the teaching of physiologists, that it has always been a matter of surprise to those interested in the feeding of infants to find, occasionally—especially among the poorer classes—infants fed upon corn-starch or other farina, almost to the exclusion of other food, and thrive.

At present, we presume that amylaceous material has of necessity to be converted by hydration into glucose, and for this reason I will not detain you this evening by indulging in the more speculative aspect of this subject, as to whether dextrine is capable of being absorbed, and which of the two ferments, that of the salivary glands or of the pancreas, is of the most importance. We have left this matter for further investigation. Prof. Albert R. Leeds, in his very able exposé of the subject of foods as regards their chemical constituents, made the matter so clear that in his table of the analyses we have evidently an accurate guide for the selection of foods in individual cases. But as the general belief is, that for infants of a tender age our choice should fall on that which contains a minimum quantity of starch and a maximum amount of vegetable albuminoids, or foods based on the Leibig formula, I deemed it valuable to institute a series of experiments, the result of which I confess were rather surprising, to test the saliva of infants, and to satisfy myself that the reason why some children apparently thrive on starchy food is not due to any change in the starch in its preparation, but depended upon contact with secretions well established in childhood.

In these tests we endeavored, as far as possible, to exclude all error. Corn-starch was used, it having been previously boiled, cooled into a paste, and portions of this were put into little linen bags, and given to infants to suck for two minutes at a time; Pavy's test was then used; the corn-starch paste exhibited before the operation no evidence of sugar change.

The linen was thoroughly boiled without discoloration of the solution. The bags with their contents were in each case thrown into a test-tube, and I submit for your examination the accompanying report.

To the resident physicians of the Philadelphia Hospital, Drs. B. F. Hawley and A. E. Roussel, I am indebted for assistance in this matter, as many of these tests were repeated a number of times by them, and great care was used to insure accuracy. My report includes the results obtained by experiments with the saliva of twenty-one children, varying in age from six days to seventeen months. The sugar change was noted in all but three—one of these was a babe six days old—whilst in another babe seven days old a marked reaction was observed. I feel satisfied that some infants do digest starch provided it is presented to them in a digestible form, and also that the salivary secretion which occurs earlier than we have been accustomed to believe, is allowed to come in contact with it, and I cannot but attribute the many statements to the effect that starchy food in small quantities is contra-indicated, to the fact that the secretions of the mouth are less liable to exert their influence when such food is administered by bottle and deposited in a surprisingly short time in the acid juices of the stomach. If starchy food, such as barley flour, oatmeal, rice, wheat flour, etc., is indicated on account of its highly nutritious qualities, which exist in all portions of the grain, and deemed advisable in the feeding of children, our few observations teach us that they should be administered in such a way as to insure their thorough digestion, and I am satisfied that the surprising results we witness, especially among the poor, of thriving table fed babes, is due to the mode of feeding more than to the fact that they are exceptional and astonishing cases. My table shows that the age of the infant is not a guide to the quality of its saliva, and we should bear this in mind when choos

ing the form of food. Thus, should we be called upon to regulate an infant's feeding, it would be important for us to test the saliva.

If we find a sugar change taking place we might incorporate with milk small quantities of one of the cereals, either barley, oatmeal, or wheat. On the contrary, should the test prove negative Horlick's or Mellin's food would be decidedly preferable. But while thoroughly convinced that the saliva is a most important element in digestion, we cannot overlook the fact that starchy foods have also to run the gauntlet of the pancreas, which organ if it possess in childhood relatively the same power that it does in latter years, is far more active than the salivary glands. We cannot then overlook the value of a microscopic examination of the stools of all bottle-fed children, for I believe that by this alone we can regulate the quantity of farinaceous food, detecting the proportion of the undigested residue.

Child's name.	Age.	No. of teeth.	Food.	Reaction.	No. of experiments.
Smith	6 days.....	0	Breast.....	None.....	3
Coyle	7 ".....	0	Breast.....	Marked.....	1
Gallagar.....	11 ".....	0	Breast.....	Well marked....	2
Asbulson.....	12 ".....	0	Breast.....	Marked.....	1
Perry	2 weeks.....	0	Breast.....	?	1
McErwin.....	3 ".....	0	Breast and crackers	Well marked....	3
Meenan	3 ".....	0	Bottle.....	Perceptible.....	2
Conner	4 ".....	0	Breast.....	Marked.....	2
Davis	4 ".....	0	Breast.....	Marked.....	1
Beatty.....	4 ".....	0	Breast.....	Very slight.....	2
Sumley.....	4 ".....	0	Breast.....	Marked.....	1
McCann.....	4 ".....	0	Breast.....	Very marked....	1
Newhouse.....	7 ".....	0	Breast.....	Very slight.....	2
Roberts.....	2 months..	1	Breast.....	Marked.....	2
Nerain	2 ".....	0	Breast.....	Very marked....	1
Boeuning.....	2 ".....	0	Breast.....	Marked.....	1
Hemileth.....	4 ".....	2	Corn-starch and crackers.....	Well marked....	2
Roach.....	5 ".....	1	Corn-starch and crackers.....	Slight.....	3
Hall	8 ".....	2	Breast and crackers	Marked.....	1
Devine.....	13 ".....	4	Corn-starch and crackers..	Well marked....	1
Wood	17 ".....	.....	Condensed milk.	None.....	.....

The following are my conclusions :

The saliva of some infants possesses the property of converting starch into glucose regardless of age.

The age of the infants cannot be taken as an indication of this property of its saliva.

When such a condition is found to exist, a small quantity of well-prepared farinaceous food is valuable as an element in the diet, incorporated with mixed cow's milk.

An examination of the stools of children so fed, would be a guide as to the quantity of starchy food to be used, and when farinaceous food is employed, slow feeding is probably preferable to the bottle—*Proceedings of State Medical Society of Pennsylvania.*

ON SOME POSTEPILEPTIC PHENOMENA.

In a paper read in the Section of Medicine, at the Annual Meeting of the British Medical Association at Liverpool, August, 1883, Julius Althaus, M.D., M.R.C.P. Lond., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, makes the following introductory observations before describing a series of cases: "I wish to draw attention to certain either acute or chronic alterations of the mental faculties which have fallen under my notice, as direct consequences of epileptic attacks. I shall purposely exclude, in discussing this matter, any cases in which epileptiform seizures took place in consequence of gross organic lesions, such as tumour of the brain, chronic inflammation of the membranes and the gray surface of that organ, blood-poisoning of various kinds, and other diseases in which the convulsive paroxysms were only one symptom amongst many others; and I shall confine myself strictly to the consideration of those cases in which epilepsy occurred as a true neurosis, that still mysterious and unexplained functional disease of the gray matter of the brain, which is possibly owing to some kind of imperfect nutrition, but certainly not to any such structural alterations as would reveal themselves to our present means of research.

"The paper is based on an analysis of the cases of 250 epileptic patients which have been under my care in private and hospital

practice during a period of six years. Amongst these cases there were 89, or 35.6 per cent., in which no preceptible temporary or permanent alteration in the mental condition, which could be ascribed to the epilepsy, was to be ascertained ; while in 161 cases, or 64.4 per cent., such alterations did occur. Of the 89 cases which escaped mental deterioration, 61, or 68.5 per cent., were instances of nocturnal epilepsy, while in 28, or 31.4 per cent., attacks took place in the daytime. All, however, which escaped were cases of typical convulsive attacks ; while in all cases of loss of consciousness without convulsion, or *petit mal*, and epileptic vertigo or automatism, a more or less permanent mental alteration was induced. Among the 161 cases which were followed by mind-affection, there were :

123 cases (or 76.5 per cent.) of typical convulsive attacks ;

26 “ (or 16.1 per cent.) of *petit mal* ; and

12 “ (or 7.4 per cent.) of epileptic automatism.

“Among these patients there were 91 males, or 56.5 per cent., and 70 females, or 43.5 per cent. The ages of the whole series varied from 5 to 62 ; and when these were distributed over decades, it appeared that the decade from 5 to 15 was at the bottom of the list with 10.5 per cent. ; while that between 15 and 25 headed the list with 24 per cent., the other decades being very nearly even, with a medium of about 16 per cent. The hereditary influence was marked in 66 cases, or 40.9 per cent. The nature of other predisposing or exciting causes, as far as they could be ascertained, did not appear to have exerted any special influence, since they were much of the same kind as in those cases in which the mind was not affected. I will, in passing, remark that I have excluded from the present considerations those cases which were apparently owing to injury to the head, syphilis, and masturbation, as these are of a complex character.

“In cases, therefore, which form the groundwork of this paper, are only such where epilepsy was the primary event, and where some mental disturbance was observed subsequently to, and as a direct consequence of, the attacks. There are two forms of this disturbance, viz.: an acute one, where mental symptoms occur soon after attacks, and disappear again after a certain time ; and

a chronic form, in which there is a gradual and permanent loss of mental power consequent upon attacks.

"The characteristic feature of the acute form of postepileptic mental affection is its periodicity. Identical, or at least highly similar, symptoms are seen to occur year after year, and gradually become intensified, unless they be checked by active treatment. They do not always occur immediately after attacks, but occasionally a day or two afterwards, and last a variable time, but rarely longer than a week. After such an attack is over, the patient has mostly no recollection whatever of what has occurred."—*British Medical Journal*.

A GOOD REMEDY OUT OF FASHION.

In an address on this subject, delivered at the annual meeting of the Metropolitan Counties Branch of the British Medical Association, by the President, Dr. C. J. Hare, late Physician to University College Hospital, the lecturer made some interesting observations on emetics and bleeding:

"It is not long ago that, in a very urgent case of bronchitis, I advised the administration of an emetic; when the gentleman whom I had been called to meet in consultation said, 'Why, I never gave an emetic to an adult in my life.' In former times it was not unusual, on the contrary, to commence the treatment of many diseases with the administration of a dose to procure vomiting; and although the remedy might then be given sometimes indiscriminately and according to routine, only those who have seen the effects of emetics, properly and judiciously given, can conceive the beneficial effects they sometimes produce. In the early stages of an attack of croup, it was by no means unusual to give an emetic of tartarized antimony or of ipecacuanha; and it is in accordance with the recorded experience of some of the best authorities and most practical men, and quite consonant with my own experience, too, that symptoms which presented the most certain augury of a severe attack were by these means cut short, the hoarse voice resumed its natural character, and the febrile symptoms were in a few hours relieved. I know quite well that

a great fear is entertained by some as to the depressing effects of emetics ; but the fear is theoretical, and not practical, and those who have had most experience in the administration of them best know how groundless the fear is. In diphtheria, too, I have seen the false membranes which are out of the reach of local remedies, and which the patients cough and cough in vain, and utterly exhaust themselves to get quit of, readily brought up by the action of vomiting, to the immense relief of the sufferer.

“ In suffocative bronchitis, the effect of emetics is sometimes magical, and by their administration in such cases not only is immense relief given, but I verily believe—I am certain—that lives are saved. You are called to a patient who has been ill a few days, with increasing dyspnœa ; she is sitting up in bed (I draw from nature), for to lie down is impossible ; she is restless, and tossing about ; the lips, and indeed the whole face, blue ; the eyes watery and staring ; the pulse quick and small ; the cough constant ; the expectoration semi-transparent and tenacious ; over every square inch of the chest, front and back, from apex to base, you find abundance of rhonchi ; moist, sonorous and sibilant ones in the upper part of the lungs, and muco crepitant or mucous *râles* towards the bases. Ammonia and stimulants, right and good in their way perhaps, in such a case are too slow in their action ; the patient is, in fact, more or less slowly, more or less rapidly suffocating. An emetic of twenty-two grains of ipecacuanha in an ounce of water is given ; in ten or fifteen minutes the patient vomits, and brings up a huge quantity of that tenacious mucus, and the whole aspect of the case is altered ; the distressed countenance is relieved ; the breathing is at once quieter ; and the patient is able for the first time for the past twenty-four hours to lie moderately low in bed, and to get some sweet, refreshing sleep. The patient is, in fact, rescued from the extremest peril, and in this case, and in many similar ones, too, I believe, from otherwise most certain death. Of course, in such cases the emetic is not given for its effect on the stomach, but for its collateral effect in mechanically clearing out the enormous amount of secretion which accumulates in the bronchial tubes, and which the patient is otherwise quite incapable of getting quit of ; and thus the half choking, almost asphyxiated condition is

changed for one of comparative comfort, and time is gained for the action of other appropriate remedies. No doubt the secretion may, and often will, accumulate again ; and I have not hesitated again in bad cases to repeat the same good remedy ; but it is a fact, and a very positive one, too, that, quite contrary to what those who have had no experience in the plan suppose, the system rallies instead of being more depressed under the action of the remedy."—*British Medical Journal*.

CASE OF DIABETES TREATED WITH CODEIA.

Dr. Bradbury narrated a case of diabetes mellitus, under his care in Addenbrooke's Hospital, benefited by the administration of codeia. The patient was a maltster, aged 69, who came under treatment in September, 1882, with a history that he had had no previous illness of importance, and who had been temperate, robust and remarkably stout. About two and a half years back, he had noticed that he passed an excessive quantity of water ; he then began to suffer from neuralgic pains about the left eyeball, slight dimness of vision, loss of flesh, hunger and thirst. He then came into the hospital for some months, and was treated with salicylic acid. After some improvement was maintained for about twelve months, early in 1882 he began to have a recurrence of the symptoms. In September, 1882, it was reported that vision had been entirely lost in the left eye, and much impaired in the right. Sharp darting pains had occurred in the limbs during the last three months, and had affected the lower limbs with great severity. He had also suffered from giddiness. There were signs of cataract in both eyes, with whitish patches in both retinæ, but no hæmorrhagic patches. The gait was peculiar, as he walked with short strides and some hesitation, and a difficulty in turning round. Sensation in the limbs was normal. Patellar, spermatic, abdominal and posterior scapular reflexes were quite absent. The urine had a specific gravity of 1037 ; it contained a large quantity of sugar, but no albumen. For seven days he was allowed the ordinary hospital diet, and no

drug was given; the daily average of urine was 84 ozs., and there was no change in the symptoms. For the next twenty days his diet was restricted to meat, greens, eggs, tea, brown bread, butter, and beef-tea, the daily average of urine being 52 ounces, and slight improvement being noted in the pain in the limbs. During the next seven days half a grain of codeia was given daily, and the daily average of urine was 48 ozs. Then for ten days a grain of codeia was given daily, and the average of urine was reduced to 45 ozs. From November 1 to December 8, the dose of codeia was one grain and a half daily, and the average urine was 40 ozs. During this period the pain was to a great extent lost, and the sight improved in the right eye, and perception of light returned in the left. After December 8, until he left the hospital, he took two grains of codeia daily, and passed on an average 33 ozs. of urine. During the whole of his stay in the hospital, the specific gravity of the urine was scarcely at all affected, varying from 1034 to 1038, and his weight varied from 12 st. 9 lbs. to 12 st. 12 lbs., but was not affected by the treatment. When discharged, in January, 1883, the report was that the man had for some weeks been free from pain; the sight had improved to a slight extent in the right eye; that the absence of patellar reflex continued, and that the gait had not improved, though this latter symptom was attributed to the deficiency in sight. Dr. Bradbury said, in reply to the discussion which followed, that the case was especially interesting, on account of the presence of nervous symptoms, and the marked improvement in them and in the polyuria by the treatment adopted. He had only that day seen another case in consultation in which there was much the same gait, shooting pains in the legs, and a complete absence of the knee-phenomenon. In this case, there was a gouty history; and Dr. Bradbury said he had under his care a gentleman who had had several attacks of gout, had now difficulty of walking, and in whom the patellar reflex was totally abolished. In none of these cases was there any ataxy. A close relationship may exist between gout and glycosuria, and these cases usually ran a somewhat protracted course, quite different from the diabetes occurring in young persons in whom there was no gouty history.—*British Medical Journal*.

SEA-SICKNESS AND ITS PREVENTION. BY HENRY J. BENNET, M.D., Formerly Obstetric Physician to the Royal Free Hospital.

In his interesting letter on sea-sickness which appeared in the *Journal* of July 7th, Mr. Kendall mentions various modes of treating sea-sickness, but does not speak of its prevention. From twenty-five years' personal experience, and from that of scores of friends and patients, I think I may say that I have discovered a very simple means of preventing sickness, in most cases, in short voyages. This preventive remedy is merely the ingestion of strong coffee some time before embarking.

I discovered the influence of strong coffee quite accidentally. A quarter of a century ago I was traveling on urgent business from Paris to London, and on arriving at Folkestone found that I had an hour or more to dispose of. I went into a *café*, and ordered a cup of *café noir*, the strong black coffee frequently taken on the Continent, with sugar only; this cup I repeated. The weather was awful, the sea tempestuous; nothing but dire necessity would have induced me to start, and I expected to be ill in five minutes, being a wretched sailor. To my utter astonishment, I remained perfectly well throughout a tedious and very rough passage. Indeed, I think I was the only passenger on board who was not ill. This circumstance made me think that perhaps it was the strong coffee that was the cause of the immunity, and subsequent experience has proved that such was the case. To succeed, however, certain precautions are necessary. The coffee should be taken long enough before embarking to ensure its absorption—say one hour, if alone with sugar; about two hours and half, if with milk. Moreover, there should be nothing whatever in the stomach—nothing for the stomach to do. To prevent exhaustion, however, a good, easily-digested meal should be taken about four hours before embarking. The coffee, also, should be good and strong, unmixed with chicory; otherwise it produces no effect. If sickness ensue and food be thrown up, the conditions necessary, according to my experience, to secure immunity, have not been secured, and the non-success is not a real failure. I consider that an infusion of about an ounce and a half

of pure coffee-powder is about the quantity necessary. It should be infused (medicinally) in about four ounces of boiling water for ten minutes, say in a warmed mug or jug, poured off and drunk with sugar as *café noir* an hour before leaving, or as *café au lait* (with milk) two hours and a half before. It is best made at home, and put in a bottle, to avoid chicory or English wish-wash.

Contrary to the generally received opinion, I do not think that the stomach being full on going on board is a prevention against sea-sickness. In my experience I find that it promotes and causes it. The poor stomach, full of food, buffeted about, refuses to do its work, and in desperation rejects its contents. I have been at sea nearly a hundred times since then; thanks to the coffee, I have scarcely ever been sick on short journeys (under ten or twelve hours), and very many persons to whom I have recommended the plan have enjoyed similar immunity. The influence must be that of a brain and nerve tonic, which strengthens the sympathetic nervous system, and renders it less impressionable to liquid shocks. I have published elsewhere the opinion that sea-sickness is probably due, in a measure, to disturbance of the circulation by the irregular motion, and to its influence on the sympathetic nerves. All the blood in the body is irregularly banged about by the motion of the vessel in a rough sea. Animals at sea for the first time are as ill as ourselves, especially dogs, and it cannot be fear, for on land fear does not produce sickness with them or with us, unless very exceptionally.

On longer journeys, I advise travelers still to take the coffee in the same way, and then to lie down in their berths. The influence of a strong dose of coffee on the nervous system lasts for eight or ten hours. During this time the body may become accustomed to the motion of the ship. They had better, I should say, take no food, either liquid or solid, until the feeling of thirst or of hunger show itself. For the first (thirst), a mineral water, soda or Apollinaris, with or without brandy or champagne, may be sipped. For the second (hunger), *café au lait*, with or without a little bread, may be taken; and that agreeing, curry, as advised by Dr. Kendall, could be tried.

In the continued sickness of long voyages, many patients of mine have derived immense, and often permanent, relief from the

injection into the rectum at night of fifteen or twenty drops of laudanum, in an ounce and a half of warm water, to be retained, by means of a small elastic baby injection-ball. If not retained, it can be repeated in half an hour or an hour. Sleep is generally obtained, even in extreme cases; and during sleep the body may become accustomed to the motion, as will coffee. Some patients have told me, or written to me, after long voyages, that this mode of employing laudanum has saved their lives. I have proposed, as have others, the hypodermic injection of morphia; but I have no personal experience of its use, and cannot say whether or not it acts better than the injection of laudanum *per anum*. When on board ship in short passages, I am generally too fearful of personal sickness to be of much use to others, feeling it prudent to remain perfectly quiescent; and I have not made any very long sea voyages.

Probably strong tea, brandy, wine, indeed any powerful nerve-stimulant or sedative, would have the same effect as coffee if taken in the same manner—that is, sufficiently long before going on board to be absorbed, and to leave the stomach empty and quiescent.

Clearly, the usual non-success of remedial agents taken for sea-sickness is owing to the stomach itself refusing to absorb what is put into it, once sickness has commenced. A glass of pure water, instead of being absorbed in a few minutes, will often be thrown up an hour or more afterwards, just as it was taken. I have often known chloroform thrown up half an hour or more after its ingestion, perfuming the ship with its odor. The rectum is not sick, and has not lost its power of absorption.

A naval surgeon, who had passed a life at sea, once told me that what he had found of most benefit in confirmed desperate sickness, was drinking constantly warm or lukewarm water. A jug of warm water and a glass are placed beside the patient, who is told to swallow half a tumblerful when the sickness comes on. It is immediately thrown up, but easily, and by-and-by calm comes. The real remedy, however, is to stay on land, or to return there, if possible; but the coffee plan, judiciously carried out, has shorn the Channel of its horrors in my case, and in that of many others.—*Brit. Med. Jour.*

KUEMMELL'S MERCURIC BI-CHLORIDE ANTISEPTIC METHOD.*

—Corrosive sublimate, or, according to the more modern nomenclature, mercuric bi-chloride, is among the oldest antiseptic preparations whose superior anti-putrefactive properties were well known. But there seems to have been no disposition among surgeons to put it to practical use in the treatment of wounds, probably through fear of its well known toxic effects. Nor need one wonder at this when the maximum dose of the drug is taken into consideration, and the certainty with which alarming symptoms of poisoning are produced when this dose is exceeded. The first clinic in which the use of it was ventured in any shape was that of Von Bergman, of Würtzberg, where a gauze prepared with it was used instead of a carbolized gauze.

The credit of using it as a general antiseptic, both for purposes of irrigation and wound dressing, belongs to Kümmell, of Hamburg, who, having his attention called to its powerful germicide properties by the labors of Koch, proceeded by a series of experiments to demonstrate in how far it might be made useful to the operating surgeon. Dougall, Billroth, Buchholtz and Sternberg, of the United States Army, found that in solutions varying in strength from 1 to 1,000 to 1 to 20,000 bacteria were killed and their further development checked. The bacillus of gangrene of the spleen, according to Koch and Pasteur, resists the action of all other antiseptics with the exception of that of the mercuric bi-chloride. In a solution of this latter of the strength of 1 to 1,000 Koch succeeded in destroying them entirely within a few minutes. In a solution of the strength of 1 to 5,000 their growth was markedly retarded.

Acting upon the possibilities which these experiments suggested, Kümmell proceeded to make a practical test of the applicability of the mercuric bichloride as an antiseptic wound dressing. Disappointed at the comparatively slight antiseptic effect of the five per cent. carbolic solution in general use for purposes of irrigation, he at first used a 1 to 5,000 solution of mercuric bi-chloride for the same purpose in Schede's wards in the Hamburg General Hospital. He gradually increased the strength of

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the irrigating fluid to 1 to 1,000, and even to a one per cent. solution, without the slightest trace of dangerous symptoms supervening. The five per cent. solution of carbolic acid was used for the spray and as a bath for the instruments. The latter, if exposed to the action of the mercuric bichloride for only a few seconds, will become blackened by the rapid amalgamation upon their bright surfaces: nickel plating will not protect them from this injury. Enveloped as the head of the operator and his assistants are by the spray, a sufficient amount of the latter, were it to be even an atomization of a very dilute solution of the mercuric bichloride, might be productive of troublesome if not positively dangerous symptoms. It is evident, therefore, that for neither of the above purposes can the corrosive sublimate solutions be made available. In two patients treated with the one per cent. solution the constitutional effects of the drug appeared: in one salivation taking place, and in the other a diarrhoea, which latter was afterwards thought to be of a tuberculous origin. Recovery took place in both cases in a few days without the necessity of a removal of the dressings. Both of these patients had suffered previously from iodoform intoxication, suggesting a peculiar susceptibility to the action of antiseptics.

Since the introduction of the mercuric bichloride as an irrigating fluid, Kummell deprecates the use of carbolic acid except when absolutely required in the operation itself. The use of the sublimate justifies its free use in cleansing the floor and the walls of the operating room are washed with the solution, and no accident has yet occurred to attendants or patients. After seven months' experience in this free manner, he avers that, with the exception of the cases above alluded to, no ill effects whatever are attributed to it.

In a person with an extremely sensitive skin, the use of mercuric bichloride may, according to Kummell, in an eczematous condition of the parts surrounding the wound, does not occur from a simple irrigation of the surrounding tissues; but when it does arise, it arises from the constant contact of the dressing with the hood with dressings impregnated

in which putrefaction changes have already occurred, the mercuric bichloride solution quickly banishes the odor and arrests the septic processes.

The dressings devised by Kümmell consist of sublimated gauze and cotton, sublimated silk, sublimated cat-gut, sublimated oil, and sublimated inorganic dressing materials. These latter comprise powdered glass, sand, coal ashes, asbestos, lint made from spun glass, and, for purposes of drainage, capillary threads of spun glass.

Sublimated gauze and cotton are designed to take the place of carbolized gauze and cotton. They are made hygroscopic in the usual manner, and then impregnated with the following:

Corrosive sublimate..... 10 parts.

Alcohol.....4,490 "

Glycerine 500 "

The moisture is pressed out with a clothes wringer. If a stronger solution of the corrosive sublimate is used, eczema and bullæ of the integument will be produced.

For sutures, sublimated silk is used. It is previously prepared as for carbolized silk, by Hegar's method, and then boiled for two hours in a one per cent. solution of the corrosive sublimate; it is then transferred to a one-tenth of one per cent. solution of the same, where it is kept ready for use.

For cat-gut, sublimated cat-gut is used. The unprepared cat-gut is immersed in a one per cent. solution of the corrosive sublimate for twelve hours, and then firmly wound upon spools, and preserved in an alcoholic solution of half of the above solution, to which is added ten per cent. of glycerine. Cat-gut thus prepared is perfectly stable, and it is asserted by Kümmell will be perfect immune against infection, whatever might have been the condition of the cat-gut prior to its preparation.

A solution of sublimated silk of strength of one per cent. is employed for the purpose of disinfecting oil, however, as shown by Wolfhügel and Knorr, the Imperial German department of health, possesses no antiseptic properties than carbolized oil.

Antiseptic and Surgery.

the irrigating fluid to 1 to 1,000, and even to a one per cent. solution, without the slightest trace of dangerous symptoms supervening. The five per cent. solution of carbolic acid was used for the spray and as a bath for the instruments. The latter, if exposed to the action of the mercuric bichloride for only a few seconds, will become blackened by the rapid amalgamation upon their bright surfaces; nickle plating will not protect them from this injury. Enveloped as the head of the operator and his assistants are by the spray, a sufficient amount of the latter, were it to be even an atomization of a very dilute solution of the mercuric bichloride, might be productive of troublesome if not positively dangerous symptoms. It is evident, therefore, that for neither of the above purposes can the corrosive sublimate solutions be made available. In two patients treated with the one per cent. solution the constitutional effects of the drug appeared; in one salivation taking place, and in the other a diarrhœa, which latter was afterwards thought to be of a tuberculous origin. Recovery took place in both cases in a few days without the necessity of a removal of the dressings. Both of these patients had suffered previously from iodoform intoxication, suggesting a peculiar susceptibility to the action of antiseptics.

Sine the introduction of the mercuric bichloride solution as an irrigating fluid, Kümmell deprecates the use of sponges, except when absolutely required in the operation itself; the cheapness of the sublimate justifies its free use in cleansing the parts. The floor and the walls of the operating room are scoured and scrubbed with the solution, and no accident has yet occurred to either attendants or patients. After seven months use of the substance in this free manner, he avers that, with the exception of the two cases above alluded to, no ill effects whatever have been attributed to it.

In a person with an extremely sensitive skin the dressings of mercuric bichloride may, according to Kümmell, produce an eczematous condition of the parts surrounding the wound. This does not occur from a simple irrigation of the wound and the surrounding tissues; but when it does take place, which is rare, it arises from the constant contact of the wound and its neighborhood with dressings impregnated with the sublimate. In wounds

in which putrefaction changes have already occurred, the mercuric bichloride solution quickly banishes the odor and arrests the septic processes.

The dressings devised by Kümmell consist of sublimated gauze and cotton, sublimated silk, sublimated cat-gut, sublimated oil, and sublimated inorganic dressing materials. These latter comprise powdered glass, sand, coal ashes, asbestos, lint made from spun glass, and, for purposes of drainage, capillary threads of spun glass.

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For ligatures sublimated cat-gut is used. The unprepared cat-gut is first immersed in a one per cent. solution of the corrosive sublimate for twelve hours, and then firmly wound upon spools, and preserved in an alcoholic solution of half of the above strength, to which is added ten per cent. of glycerine. Cat-gut thus prepared is very flexible, and it is asserted by Kümmell will give perfect immunity against infection, whatever might have been the condition of the gut prior to its preparation.

Sublimated oil of the strength of one per cent. is employed for uniformity's sake. This oil, however, as shown by Wolfhügel and Knorre, of the Imperial German department of health, possesses no more powerful antiseptic properties than carbolized oil.
—*Annals of Anatomy and Surgery.*

THE ST. LOUIS MEDICAL SOCIETY AND THE REVISION OF THE
CODE OF ETHICS.

It will be remembered that at the late meeting of the American Medical Association, Dr. Pollak, of St. Louis, on behalf of the St. Louis Medical Society, moved the appointment of a committee to revise the Code of Ethics, which motion was promptly laid on the table. It now appears that this resolution was not authorized by the St. Louis Medical Society, and that Dr. Pollak presented it without consulting his brother delegates. At a late meeting, the St. Louis Medical Society repudiated and condemned the action of Dr. Pollak, with only two dissenting votes. The St. Louis Medical Society sits down upon Dr. Pollak, in this manner; On June 23, 1883, Dr. Atwood introduced the following, which the St. Louis Society adopted after some discussion:

WHEREAS, At the recent session of the American Medical Association, a preamble and resolution were offered for the consideration of said Association, purporting to represent the sense of the St. Louis Medical Society upon the propriety of preparing a new Code of Ethics, or altering and changing the existing code in accordance with the present relations of the profession; and

WHEREAS, In said preamble the assertion is made that "the Code has accomplished all it was designed it should, but at present many of its features are obsolete and not adapted to our wants. The necessity of an early revision is very apparent, is loudly called for in all parts of our land, and cannot be repressed much longer. . . . The time has come when the loud and very soon universal call will have to be heeded;" and

WHEREAS, The St. Louis Medical Society did not instruct, "That the committee be authorized to prepare a Code of Ethics which in their view will meet the wishes of the profession, and submit the same to the meeting of 1884;" therefore

Resolved, That the St. Louis Medical Society distinctly repudiates the statements contained in said preamble, and again expresses its fealty to the existing Code of Ethics as a time-honored and most suitable fundamental law of the profession, and specially deprecates any action calculated to reflect upon its loyalty to those principles which have heretofore secured immunity from the machinations of schismatics within or enemies without.—

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ARTICLE I.

INSANITY IN CHICAGO. By S. V. CLEVINGER, M.D., Special Pathologist Cook County Insane Asylum; Professor of Anatomy, Art Institute, Chicago, etc. Read before the Chicago Medical Society, October 15, 1883.

While collecting the material for this article, it was my intention to present an exact history of the medical progress of this asylum from its inauguration, in addition to the statistical information given herein, but many things interposed to baffle my endeavors, prominent among them being the great Chicago fire, which destroyed all the county records, and the paucity of asylum papers dating earlier than 1878, in which year the present medical superintendent, Dr. J. C. Spray, assumed charge. He found the asylum books kept in a very careless manner; blotted, smeared, and full of errors. He transferred to new pages all the case histories obtainable from what little there was of previous

record, and sought among the friends of such patients as were in the asylum for fuller details. These, as written down by him and his assistant physician, were turned over to me upon my appointment, and greatly pleased was I at the mass of information, in addition to the routine records, I was enabled to transcribe into large new case books, the memoranda of which had been laboriously and systematically made by these gentlemen. But this information mainly concerns those patients who were admitted during Dr. Spray's accession to the superintendency, and thus, in analyzing cases earlier than 1878, many sources of error must be eliminated before they can be made available statistically. There is one patient in the asylum who is said to have entered in the year 1857 (she enjoys the pseudonym of Katy Darling). The records assert her to have been admitted in 1866, but as there was no asylum here in either year, and as no attempt was made to keep even the semblance of a record of patients until Dr. Tope's appointment in 1870, it isn't worth while fussing about a little matter of nine or ten years in a patient's career under such circumstances. In *ante bellum* days there was no county asylum. It seems that, by some means or other, several insane patients began to accumulate in the county poor-house, near Jefferson, Illinois, and I am informed by Dr. Theo. H. Patterson, who treated the county patients in 1866, that in that year there were between 20 and 30 insane persons in a single ward of the poor-house. As will be seen in the tabular part of this paper, Dr. Patterson's statement is quite reasonable. Drs. Webber and Kielher succeeded Dr. Patterson, and from October 1, 1867, to January 10, 1871, Dr. D. B. Fonda had charge of the poor-house as medical visitor. Some very comical stories are told of this *regime*. It seems that a warden was the great man over paupers, sane and insane, in these days, and upon one occasion a grand jury insinuated its obnoxious presence into the poor-house. A certain member of the jury ventured to ask the ruling potentate for his accounts. "Accounts," vociferated the warden, "Of course I keeps 'em. He pulled a child's copy-book from his pocket; another story has it he found it after much ransacking in the buildings), and held it up indignantly for inspection. "Here they comes in and there they goes out!" he shrieked. Whether he al-

luded to money or patients, or both, I have never been able to ascertain, but as at this date the warden, and not the doctor, was the much more important personage, it is presumable his showing was financial, and not medical. The welfare of a patient was insignificant alongside the chances of stealing a dollar or so in those times. Dr. John W. Tope was appointed medical superintendent January 1, 1871. By this time, the poor-house had outgrown itself, and the necessity for differentiating insanity from pauperism had become apparent enough to justify the erection of a large brick building capable of accommodating 300 patients (at this writing it has 519 within its walls, and more arriving weekly). Be it said to Dr. Tope's credit, that he started out with true medical *animus*, to better the condition of the insane, but, judging from the growing carelessness of the records, he or his successor, I am unable to ascertain which, became discouraged under the incessant fire of political bummers, and turned the bookkeeping over to the cranks.

Dr. Cunningham was appointed January 1, 1875, and served until Dr. Spray's term began, January 1, 1878. The year following I found this gentleman struggling against great difficulties while seeking the elevation of the medical management to a respectable status. He afforded me every facility possible for investigation. In seeking to benefit the living we have held autopsies at a time when the bare fact of his purchase of a post mortem case of instruments was used against him by such enemies as alway beset the path of those who have done good work in the world.

Medical men in European asylums have advanced our knowledge and treatment of insanity, not because they are intellectually superior to American physicians, but because in Europe medicine is afforded all the assistance necessary for its advancement, while on this side the Atlantic the medical superintendent is harrassed and embarrassed in innumerable ways, by all sorts of people, about all sorts of matters absolutely foreign to what should be his legitimate duties. There seems to be no relief ahead until the general public shall take a more enlightened interest in the insane, and strengthen the hands of the honest superintendents of asylums, instead of contenting themselves with the vulgar

belief that every institution of the kind is a hell under any circumstances. The people listen to the idle or malicious stories set afloat by designing place-hunters; but while ever ready to condemn, will not sustain, by a simple investigation and endorsement, the management which has been unjustly assailed.

The earliest authentic record in my care relating to the inmates, is a verdict signed and sealed by the County court clerk, dated April 30, 1867, which sets forth the fact that on that day the County court convened at the Cook county Hospital for the Insane, and found twenty-seven males and forty-two females named in the verdict insane. The erroneous condition of the records is at once apparent upon comparing the number given by the verdict as present in 1867 with the list of admissions entered on the books previous to and including 1867 in this table.

TABLE I.
ADMISSIONS.

Year.	Males.	Females.	Total.
1860	1	...	1
1861	...	...	...
1862	...	...	...
1863	1	1	2
1864	1	1	2
1865	...	...	...
1866	6	12	18
1867	7	13	20
1868	7	6	13
1869	9	17	26
1870	28	24	52
1871	75	91	166
1872	71	43	114
1873	84	57	141
1874	83	73	156
1875	86	77	163
1876	126	110	236
1877	108	101	209
1878	114	105	219
1879	151	146	297
1880	134	130	264
1881	136	118	254
1882	199	153	352

It is evident from this discrepancy that there must have been a population of total admissions nearer 3,500 than the figures given.

TABLE V.

	MALES.	FEMALES	TOTAL.
Recovered.....	208	247	227
Improved.....	297	253	276
Unimproved....	89	48	69
Died.....	406	450	427

Which is putting the very worst phase possible forward. It is obviously unjust, for it is to be recollected that in Tables II and III 429 patients were sent to State Hospitals after a residence here of from one week to eleven years, and these asylums have the right to take from us selected patients, and *our best or most curable cases were taken from us by the State.*

On this ground I feel justified in including the State cases among the discharged improved in the next table. This, of course, lowers the death rate and raises the betterment list unduly, but, as in Table V, none of the insane present in the hospital were included by including them in the next calculation with the 70 unknown we have a basis of 2,470 individuals—1,264 males and 1,206 females which affords per 1,000.

TABLE VI.

	MALES.	FEMALES	TOTAL.
Recovered.....	124	143	134
Improved.....	177	146	162
Unimproved.....	60	27	41
To State Hospitals.....	196	141	174
Died.....	241	262	251
Unknown.....	20	36	28
In Hospital.....	187	233	210

Should this appear to run to the other extreme owing to the impossibility of eliminating every discordant element, let us tabulate a mean between the two preceding estimates.

TABLE VII.

	Males.	Females.	Total.
Recovered.....	166	195	180
Improved.....	237	199	219
Unimproved.....	75	37	55
Died.....	323	356	379

There is much unnecessary cavil in the medical journals at the term "recovered" as used by asylum statisticians. If it honestly express the supposed condition at the time of the patient's discharge, no other word could be used instead. If a person actually recover from a recurring disorder of any kind whatsoever, the possibility of recurrence should not weigh against the present fact of actual, even though temporary, recovery. It is impossible for the asylum physician to follow even a small percentage of discharged patients to their death. Counting together the recovered, improved, and State Hospital cases as having at least undergone betterment by their stay in the asylum, the lowest, highest and mean estimates stand, then, as follows :

TABLE VIII.
MAXIMUM PER CENT.

	Males.	Females.	Total.
Improved	50.5	50.0	50.3
Unimproved	8.9	4.8	6.9
Died	40.6	45.0	45.0

TABLE IX.
MINIMUM PER CENT.

	Males.	Females.	Total.
Improved	49.7	43.0	47.0
Unimproved	6.0	2.7	4.3
Died	24.0	26.2	25.0

Let me parenthetically remark that where 100 cannot be obtained in footing up any table requiring it, a little study will reveal the reason therefor. Differently based calculations without all the factors.

TABLE X.
MEAN PER CENT.

	Males.	Females.	Total.
Improved.....	50.1	46.5	48.6
Unimproved	7.4	3.7	5.6
Died	32.2	35.6	33.8

Wm. Farr, M.D., C.B., D.C.L., Registrar General Statistician (whose researches were accredited to the doomed to be unknown head of that office), has recently published his English life tables, with the contained results of research from the year 1838 until just before his death in 1883. Forty-five years experience as a patient monomaniac in statistics he indulged in, swallowing snubs of "superiors," devoting his entire life to the elucidation of problems of paramount interest to the real workers in the world, who wish to help the unthinking, reckless herd from the consequences of their own blunders. From his invaluable tables I learn that the mean duration of life, or mean after lifetime of males at birth, was 39.9 years, whereas by the new table it becomes 41.9, representing an increase of two years, or an addition of five per cent. to the mean duration of the lifetime of males. The recent addition to the lifetime of females appears to be still more marked. According to Dr. Farr's life table (see *British Medical Journal*, June, 1883), the mean duration of life of females was 41.9, whereas the new table makes it 45.3 years, representing the addition of nearly three years and a half, or more than eight per cent., to the average life-time of all females born. So far the paper proves that the reduced death rates signify an important addition to the lifetime both of males and females. Twenty to sixty he classes as the useful period of human life; other years are classed as dependent years. Thus, sixty-six per cent. of the increased duration of human life in England is lived at the useful and productive period, and not more than thirty-four per cent. at the dependent ages of childhood or old age. The British editor deduces that the increase of knowledge, with its opportunities for good work and intellectual enjoyment, are largely creditable with the increased duration of human life, and what can be more plausible than the supposition that when people grow more honest, less animal, and better acquainted with the conditions under which they live, they will survive as the fitter to live, by reason of their acquirements and living consistently with them.

The bearing of Farr's life table, placing the male climax at 41.9, and the female at 45.3, upon our present subject is this: Our last table shows the rapid increase of insanity after the thirtieth year, the greatest number of females being insane at

thirty-five and males at forty, the mortality statement of Chicago city shows the maximum death rate there to be between the ages of twenty and forty; tallying with our showing of moribund mentality in the regions of those years. Just as it is not safe to draw general conclusions from the statistics of a single asylum, or even those of several asylums, so the ages at which somatic and mental death seems most likely to occur in Chicago, with its population of two-thirds of a million persons, for the most part mentally and physically overstrained, compared with Farr's climacteric ages, drawn from the vast population of Great Britain, largely composed of settled, steady routine workers, and rural drones, I look upon as indicating the driving, scrambling character of our environment with its necessary accompaniment of a shortened mental and bodily life. The *American Journal of Neurology and Psychiatry* for May, 1888, notes that Dr. Wilkins, of the California Asylum at Napa, prophesies from the rapid increase of insanity in California (1 to 833 in 1860, and 1 to 383 in 1880) that there will be one insane person to two sane in the year 2000 in that State. The *Journal* very properly remarks: It is obvious that Dr. Wilkins ignores the fact that California allures a large number of wandering lunatics and these, as the State increases in population, and the restraining influences of civilization assert itself, find themselves out of accord with their surroundings, are then recognized to be insane and committed to asylums.

This apparent resulting increase occurs in all new countries. Just so it is with the Chicago insane, the proportion of whom to the population is somewhere in the neighborhood of the California figures of 1880 (1 to 383). There is a great influx of paupers from Europe into Chicago. Indeed, whole parishes of paupers have been "assisted" by the English government hitherward and Chicago receives a good share of such assisted emigrants. There is evidence on the books to show that one case at least left the Christiania Asylum and sailed straightway across the sea to this institution. Basing proportions of insane to surrounding population requires more than the mere numerals.

.. Evelyn, in 1620, wrote of the grand and great climateric, the sixty-third year, and a popular notion has been that by multiply-

ing seven into the odd numbers, three, five, seven, nine, critical ages are obtained. I do not find this supported by mortality statistics. Mr. John Mattocks, a prominent lawyer of Chicago, called my attention to the remarkable frequency of deaths at the age of sixty-three in proportion to the number of persons living at that age. I regret that my tables do not show the ages at which the insane have died in this institution. The time allotted me in which to finish this article will not enable me to make the necessary calculations.

Dr. Raynor, in the London *Lancet*, December 30, 1882, began an investigation, which led Dr. T. A. Chapman, the Medical Superintendent of the City and County Asylum, Hereford, England, to publish his statistical deductions on the "Recovery and Death Rates in Asylums," in the London *Journal of Mental Science*, April, 1883. Dr. Chapman bases his calculations upon the statistics of 701 English asylum years, dealing with 112,972 admissions, and 388,661 as an average number resident. His conclusions may be summarized thus:

1. English statistics show most favorable results with asylums of moderate size, holding 300 to 700 patients.
2. No two asylums in the world are capable of comparison together as to recoveries and death rates, for the circumstances governing each asylum make it *sui generis*. For instance, one asylum sends all terminal dementias and hopeless cases to special institutions for them, and its death rate must necessarily be very small; another asylum takes only curable cases, etc.
3. An actively moving population affords the largest proportion of active disease, whether curable or fatal, and that the cost of such asylums is greatest.
4. Low death rates go with high recovery rates, and *vice versa*, notwithstanding that many individual asylums present statistics very much the other way.

Looking over the voluminous tables of Dr. Chapman, I can find nothing in the rates of recovery and deaths to enable me to make a comparison with our own figures.

The recovery rate is calculated on the total admissions, and covers a wide range, the average being 33.7 per cent.; but the death rate is based upon the average number resident, which I have been

unable to imitate, owing to absence of records older than 1878. Both our recovery rate and death rate are figured from the total admissions, as far as attainable, and in the belief that omissions occurring in the old records balance themselves, I think our present estimate is close upon the truth.

Chicago is a rapidly-growing, progressive city, with a population of 600,000 or more, and invariably this asylum comes in for the very worst possible cases. The condition in which patients are often brought to this asylum is terrible, disgusting, and distressing. Our present State laws are largely to blame for this state of things. Patients are arrested, and pending trial are jailed in the old criminal building (the old Court House), often waiting there a week or more before trial. Dr. Bluthardt, the County Physician, is loaded down with business, and has insufficient means at his disposal to care for these wretches. The time will probably come when a place of detention will be given them, instead of incarcerating them in a common jail, but the entire insane law of Illinois needs vigorous overhauling. Opportunities are lost for improving the condition of patients in the beginning of the mental disorder, and every alienist knows that prompt treatment in the outset often averts chronicity.

An element well worth considering is that many deaths occur from just such intercurrent diseases as would have befallen these same patients had they been sane, such as Bright's disease and phthisis; also, that many figure in our death list who have, by reason of natural decline, as of old age, or the issue of a complaint existing long before admission. Glance along the line of deaths in the duration of residence table, and it will be seen that when a person lives here sixteen years or less and then dies, it is questionable if it be proper to place every such case to the charge of death from insanity, merely because the patient died while insane. The fact that the greatest percentage of death occurs in the first three months after admission, bears upon the acute condition of the patient's insanity or accompanying disease when brought here.

Dr. Spray and I have carefully eliminated from the statistics the irregular or readmitted cases which go to swell the rate of recoveries in many Eastern asylums, and lower the death rates.

For example, in the reports of a certain New York asylum, the death rate was amazingly low, and the recovery rate high. It was ascertained that the figuring had been done upon a fraudulent admission number, by counting among the recoveries one man, for example, who had been repeatedly discharged recovered, and his 20 or more "cures" had been placed to the credit of the total cases recovered.

Dr. Alex. Thuemmler, who has been many years the efficient Assistant Physician at this asylum, tells me that to his personal knowledge, the St. Louis Asylum invariably turned over their demented to the poor-house, and in the year 1880, in consequence, reported only 15 deaths.

These political dodges are what causes so-called American Alienism to stink in the nostrils of European physicians interested in insanity statistics and treatment. The fact that it is probably the minority of American superintendents who resort to this sort of thing, does not help us at all. "*Mitgefangen, mitgehangen.*"

As far as ascertainable, the ages of patients upon their admission are given in the next table.

TABLE XI.

AGES.	NO. OF MALES.	NO. OF FEMALES.	TOTAL.
6	1	...	1
13	2	2	4
14	...	4	4
15	3	2	7
16	3	2	5
17	14	9	23
18	15	11	26
19	15	19	34
20	26	27	53
To 25	203	194	397
" 30	237	244	481
" 35	238	241	479
" 40	251	195	446
" 45	167	119	286
" 50	103	104	207
" 55	69	86	155
" 60	35	45	80
" 65	24	22	46
" 70	9	16	24
" 75	5	11	16
" 80	1	7	8
" 85	1	2	3
" 90	...	2	2
" 94	...	1	1

The mistake must not be made here that this table gives the ages at which the patient became insane, because a large propor-

tion was insane before arrival. It is the best showing we can make under the circumstances, and is valuable as an index, at least, to the age at which the patient became troublesome to relations, or neighbors, or otherwise became "legally insane" which is far from meaning when he or she began to be medically insane.

Passing to a consideration of nativities, I wish I could afford the medical public as elaborate a disquisition as that of Dr. E. C. Spitzka's, published in the *American Journal of Nervous and Mental Disease*, October, 1880, constructed from the report of Dr. J. G. Kiernan, who was many years assistant physician at Ward's Island Asylum, New York. Dr. Spitzka's racial statistics run thus: Anglo-American, 438; English, 85; Scotch, 29—Anglo-Saxon Race, total, 552. German-Americans, 213; German, 268; Dutch, 11—Germanic Race, total, 492. Norse, 14; Swedes, 20; Danes, 11—Scandinavian Race, total, 45. Teutonic Family, total, 1089. Irish-American, 351; Irish, 332; Welsh, 16—Celtic Family, total, 699. Portuguese, 1; Spanish, 13; Italian, 20; French, 35—Latin Family, total, 69. Bohemian, 22; Polish, 2; Russian, 3—Slavonic Family, total, 27. Hebrew, 204; Kurd, 1—Shemitic Family, total, 205. Chinese, 2; Hungarian, 2—Mongolian Family, total, 4. Negro Family, total, 204. Grand total 2,297. The records of that asylum also show the form of insanity, but careful diagnoses were not in order here in the days when "here they comes in and there they goes out," hence, I am debarred from sifting my records in this respect. When tables give unbalanced numbers it is because information is lacking in the old books, as for example in this instance, the nativities had not been ascertained in cases which I have been obliged to omit.

It is evident by the excess of these numbers over those in the total individual table, that the list is vitiated by about thirty readmissions, but this does not affect the general result.

I would like to make a comparison of these figures with the census of Chicago, but I have too vivid a recollection of the worthlessness of census returns. I have seen the most abject stupids appointed to collect such data, and in one instance in the "Far West" I knew of one scrapegrace paid per capita who

NATIVITIES—TABLE XII.

	Males.	Females.	Total.
America.....	361	200	561
Germany.....	359	282	641
Ireland.....	327	362	689
Norway.....	62	29	91
Sweden.....	87	107	194
Switzerland.....	8	1	9
France.....	16	7	23
Italy.....	9	3	12
Bohemia.....	34	28	62
Canada.....	13	12	25
Wales.....	3	1	4
Russia.....	5	.....	5
Poland.....	6	6	12
"Colored".....	18	5	23
England.....	53	26	79
Denmark.....	11	1	12
Holland.....	11	2	13
Scotland.....	20	13	33
Austria.....	6	4	10
Finland.....	1	.....	1
Saxony.....	1	.....	1
Hungary.....	1	.....	1
Total.....	1412	1089	2501

copied one thousand names from the Chicago Directory, accrediting them to his town for the sake of the pelf. Spitzka also calls attention to a similar difficulty in the census of New York, where many of the "takers" put down every one whose language they could not understand as a German.

As far as ascertained, the occupation of the insane males were : Laborers, 468 ; carpenters, 52 ; farmers, 52 ; clerks, 37 ; merchants, 33 ; tailors, 25 ; machinists, 23 ; painters, 20 ; printers and shoemakers, 17 each ; blacksmiths and sailors, 16 each ; bookkeepers, 12 ; cabinet-makers and peddlers, 13 each ; watch-makers, 12 ; tinsmiths, bakers, liverymen, cigarmakers, 11 each ; saloon-keepers, butchers, 10 each ; plumbers, stone-cutters, 9 each ; engineers, 8 ; clergymen, physicians, firemen, upholsterers, 7 each ; salesmen, 6 ; showmen, vagrants, policemen, teamsters, telegraphers, waiters, bricklayers, apothecaries, 5 each ; school-teachers, porters, confectioners, barbers, musicians, street car conductors, engravers, expressmen, weavers, coopers, 4 each ; gardeners, watchmen, plasterers, bookbinders, locksmiths, coachmen, soap-makers, millers, 3 each ; artists, silver-platers, rag-pickers, moulders, lake captains, shorthand reporters, harness-makers, railroad cashiers, distillers, collectors, editors, showcase manu-

facturers, reporters, mirror-makers, schoolboys, errand boys, saddlers, hatters, messenger boys, stewards, boat-builders, stair-builders, tanners, cooks, house-movers, brakemen, students, janitors, plow manufacturers, bill-posters, grocers, gas fitters, tobacconists, store-keepers, steam-fitters, 2 each; stamp manufacturer, wagon-maker, rope-maker, roofer, sewer builder, decoy duck maker, brewer, lithographer, carriage painter, "clairvoyant," instrument makers, knife-grinder, coppersmith, brass-finisher, railroad fireman, cattle dealer, civil engineer, inventor, basket-maker, lather, whitewasher, actor, glove-maker, pattern-maker, iron-worker, boiler-maker, auctioneer, attendant in insane asylum, razor manufacturer, cutler, caulker, drover, gold leaf manufacturer, polisher, detective, dyer, hotel runner, chiropodist, well-digger, "homœopath," switch-tender, glazier, newsboy, lawyer, locomotive engineer, locomotive fireman, contractor, nurseryman, boss of iron mill, child, 1 each.

During the preparation of the foregoing table many comical ideas arose to my mind suggested by the juxtaposition of incongruities, but as insanity is no joking matter, I shall leave my readers to their fun if disposed to see anything funny in generalizations such as the preceeding, while the physicians feel heart-sick over the scenes and particulars daily witnessed by them.

The vulgar idea that any especial trade or profession inures particularly to insanity should find dissipation after looking over the table preceeding. Avocation as a predisposing or exciting cause of insanity, finds no support from our statistics.

TABLE XIII.
OCCUPATIONS.

	Males	Females	Total
<i>Unskilled :</i>			
Laborers.....	469		
Housewives.....		770	
Domestics.....		326	
Peddlers.....	115	5	1685
<i>Skilled :</i>			
Mechanical.....	302	60	
Professional.....	31	10	
Mercantile.....	65	4	472
<i>Nons :</i>			
Children.....	3	2	
Paupers.....		13	18
	1190	985	2175

Female pursuits were as follows: Housewives, 762; servants, 319; seamstresses, 39; paupers, 12; dressmakers, housekeepers, tailoresses, each 8; salesmen, 4; cooks, fortune-tellers, school-teachers, washwomen, music teachers, 3 each; school-girls, milliners, governesses, prostitutes, 2 each; actress, nurse girl, vagrant, editress, farmer's daughter, cantatrice, 1 each.

The civil condition, as far as sought out, was: Males—single, 314; married, 366; widowed, 26. Females—single, 355; married, 579; widowed, 108.

Though the records are imperfect, the above named tend to militate against the idea of benedict immunity from craziness.

Since the foregoing was written Dr. Bluthardt informed me that during his service as one of the Board of supervisors, from 1869 to 1871, the intention was to have an asylum here for the incurable insane and a retention hospital.

The statistics of the Kankakee and Elgin Asylums, so far as they relate to Chicago insane, should form an integral part of future estimates in connection with our own, in arriving at an idea of the proportion of insane in our city population with their death and recovery rates. Even then we cannot eliminate such cases as are thrown upon us from New York to Florida, and from the west. Chicago being a great railroad center, whose lines traverse vast regions where there are no asylums, from whence many of our cases are sent to us.

Dr. Bluthardt strove for four years to better the detention jail for insane in the city, and, while he has succeeded in improving matters, there remains a great deal undone.

TABLE XIV.

SHOWING THE PSYCHOSES OF PATIENTS ADMITTED DURING FISCAL YEAR ENDING AUGUST 31, 1883, RE-ADMISSIONS INCLUDED.

	Males	Females	Total
Melancholia	22	146	168
Mania	123	36	158
Katatonie	2		2
Stuporous Insanity	1		1
Primary Mental Deterioration		1	1
Hysterical Insanity		5	5
Alcoholic	7	2	9
Epile tic	14	5	19
Re-current	10	1	11
Circular	1		1
Imbecility	6	1	7

TABLE XIV.—Continued.

	Males	Females	Total
Idiocy.....	1	.....	1
Monomania.....	7	2	9
Senile Dementia.....	6	7	12
Hebephrenia.....	3	.....	3
Paretic Dementia.....	6	1	7
Delirium Grave.....	.....	1	1
Terminal Dementia.....	18	1	19
Undiagnosed.....	7	6	13
	232	215	447

It is not at all to the credit of this commonwealth that the laws relating to the insane befit a stage of barbarism, nor can the people of Chicago be complimented for having allowed Dr. Spray to fight single-handed for the exaltation of this asylum to a respectable medical plane.

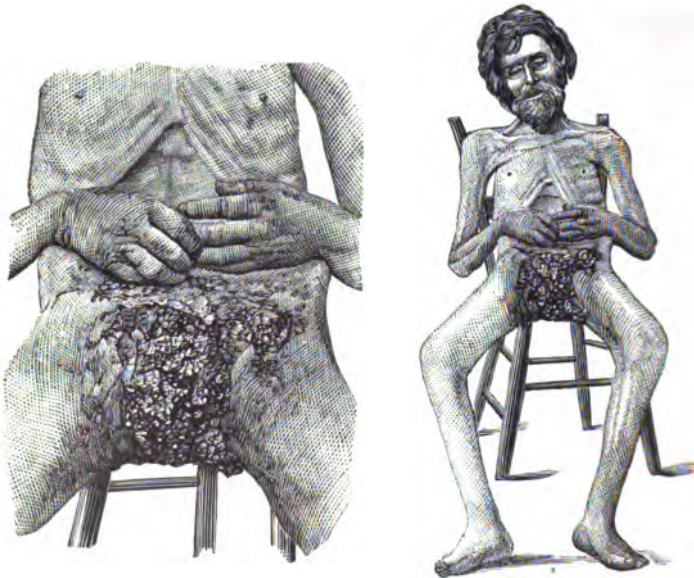
ARTICLE II.

A CASE OF SERPIGINOUS PHAGEDENA. By D. SCOTT, M.D.,
Pierre, D. T.

The details of the case here described are quite meager. The subject was a small man of sanguine temperament, at the time of his death aged forty years. The disease was of three years standing; and the initial lesion an infecting chancre (as shown by the history of the case), contracted from a Sioux squaw with whom he cohabited at the time of his infection. I visited the patient at the instance of the Commissioners of this county; and found him alone in a helpless and dying condition in a cabin on the Missouri river bottom, eighteen miles above this city. He was too feeble to give me any details of his horrible case. Lying prone upon the floor without any covering save a filthy blanket, deserted by his one neighbor, tormented by flies and eaten by maggots, he presented a spectacle to be seen nowhere save on the confines of civilization.

When I stooped to remove the filthy rags that covered the ulcer, the poor wretch with a yet lingering shame uttered a feeble protest, but off they came and for the first time my stomach, fortified by an experience of nearly twenty years, threatened to

rebel. Under the circumstances what was the duty of the conscientious physician? Down through the ages I heard sounding the injunction of Confucius and of Christ: "As ye would that others should do unto you, do ye even so unto them." In the application of this golden rule, as I interpreted it, I gave him a teaspoonful of Magendie's solution of morphia which carried him rapidly into a peaceful oblivion and final *euthanasia* twelve hours later, as I learned from his solitary neighbor next day. The photographs do not show fully the details of the ravages of the disease. The ulcer had burrowed down over the perinæum and



up over the sacrum. The penis, testicles and in fact every vestige of the external genitalia had disappeared except traces of the spermatic cords. The testes probably perished from secondary inflammation after being divested of their natural coverings. The only light I could get on the early history of the case was kindly furnished me from the records of the Military Hospital at Fort Sully by Dr. Landerdale, Surgeon of the 11th Infantry at that place. From these it appeared that the subject was admitted for treatment July, 1877, "with syphilitic ulcers of penis." "Penis amputated and patient discharged with wound nearly healed

Sept., 1879." Dr. Landerdale not having charge of the hospital at that time, had no personal knowledge of the case. This much is known, however, that he never received any regular treatment afterward. The post mortem showed that the bones had suffered extensively from tertiary lesions, notably the long bones of the lower extremity. As shown in the photographs, the tibiæ were much enlarged and nodulated by periostitis and exostoses, all of ancient date, however. No active lesion was visible except an open gummatous ulcer on the outside of one ankle involving the malleolus. I have dwelt on the presence of syphilis in this case both because the death was not wholly due to the phagedæna and also because of the rarity of the two in association. Phagedæna in both its forms usually accompanies chancroid and not chancrous sores. Incidentally let me add that phagedæna is a very common complication of venereal sores among Indians and also among white men who cohabit with them.

In the hope that this brief history may afford some interest to your readers, even though as a matter of fact it contain nothing new, I have ventured to describe in this brief way its special features.

ARTICLE III.

MYXŒDEMA. By JNO. A. ROBINSON, M.D. Read before the Pathological Society, July 9th, 1883.

We find the first mention of this remarkable and somewhat rare disease in a paper read by Sir William Gull before the Clinical Society of London, October 24th, 1873, entitled: "On a Cretinoid State Supervening in Adult Life in Women." To him belongs the honor of first differentiating the disease. He presented two cases in full, and briefly analyzed five others, in all of which the distinguishing characteristics consisted of a diffused, boggy, swollen condition of the whole body. He did not enter at length into the consideration of the morbid anatomy and pathology of the disease, but was inclined to consider it to be a manifestation of cretinism.

In 1878, Dr. William M. Ord described the same ailment and

applied to it the name, "Myxœdema," by reason of the fact that he found, upon two post mortem examinations, a greatly increased deposit of mucin in the areolar tissue. Since that time our literature has been greatly enriched by the observations of both domestic and foreign authors. However, the majority of cases of myxœdema have occurred abroad. So far as I have been able, I find the record of only five cases in this country. These cases were reported by Drs. W. A. Hammond, Allen McLain Hamilion, Holland, Ball and Cashier. Dr. A. Clifford Mercer published quite an exhaustive article on myxœdema in the New York Medical Record of April 16th, 1881.

It has been my fortune to recently obtain the notes of two cases. The first case occurred in the practice of Dr. J. H. Wallace, of Monmouth, Illinois, who kindly sent me the following brief synopsis of the notes of his case: An American wife of a railroad man, æt. 40 years. Had given birth to several children. Menstruated irregularly. Otherwise, in fair health. When first saw her, noticed swelling of face, with glossy appearance of skin. There was a cutaneous eruption, resembling eruption in arsenical poisoning. In fact, this was my first impression as to the trouble, but such was not true. Had scanty urine, bowels inactive, or torpid. No albumen, or tube casts. Numbness of limbs. General œdema, which had existed several months. Did not pit on pressure. Mental processes slow. Speech drawling.

The second case occurred in the practice of Dr. J. P. Riss. I examined this patient carefully, and elicited the following history and facts:

Mrs. S.; native of Scotland; aged 52; married; has had seven children, no miscarriages. There is no history of any hereditary ailment.

The patient had always enjoyed good health until eleven years ago. At that time she noticed she became exceedingly fatigued upon physical exertion. "Her arms and legs became tired," she said. Accompanying this weak bodily state was a correspondingly depressed mental condition. She lost all ambition, and, instead of being energetic, as was usual, she was inclined to take

life easily. There was neither melancholia nor hypochondriasis, but merely a lethargic mental condition.

Upon any disturbance of the digestive organs, she was afflicted with a troublesome urticaria. This, however, disappeared upon removing the exciting cause.

Her throat became dry, and deglutition difficult. At the same time there supervened an œdematous condition of the upper and lower eyelids. The swelling gradually extended over face, so that her friends began to remark concerning it. The œdema gradually invaded the whole body, appearing at all parts simultaneously, not at first in dependent parts, or being worse at the end of day, as in dropsy. The skin became dry, glossy, thickened and rough to the touch. Perspiration was infrequent, or absent. Her fingers became so large and clumsy that it was with difficulty she could sew, button her dress, or perform any act requiring dexterity.

For some time she has been afflicted with cold extremities and curious sensations. Her skin has lost its sensibility to a certain degree, and at times she has formications.

Her sense of taste has become impaired, and she does not relish foods. She was formerly very fond of eating. Hearing slightly impaired, while her eyesight has failed quite rapidly recently.

She has never suffered much from pain. Her menopause is over.

At the time I saw the patient she appeared to be a stout woman, however, ill nourished and anæmic. Her gait was unsteady and shambling. She seemed to draw one foot after the other as though there was a loss of muscular power in the limbs. Upon closing her eyes she could stand, or walk, without loss of co-ordination, or the appearance of any ataxic symptoms. During rest the muscles were relaxed.

Her face had a fixed, heavy, almost mournful expression. The features were so changed by the œdema, that the varying emotions could not find expression by the medium of the facial muscles. Her face had a tough, doughy feel. The tongue was enlarged. The œdema of the eyelids was so great as to almost exclude the light from her eyes. She had a peculiar habit of

blinking, but there was no photophobia. The pupils contracted and dilated normally. The conjunctivæ were injected, and lachrymation somewhat profuse.

Her speech was slow and hesitating. On being asked a question, she would hesitate a moment, then answer languidly. The mental processes seemed to be carried on very slowly. Her perceptive faculties were blunted, which fact might account for the slowness of cerebration. The lips were tremulous and bluish.

The bloodless appearance about the eyes contrasted markedly with the blushing tint of the cheeks. The patient was quite subject to flushings, when the color of the face heightened.

Her appetite was capricious, bowels costive and urine scanty. At repeated examinations of the urine the specific gravity was 1020, no albumen, sugar or casts.

She slept pretty well until 2 a. m., each morning, when she awoke and remained awake.

Her temperature was 97°; pulse 90, small and indicative of increased arterial tension.

There was no discernible disease of any vital organ.

The œdema was not characteristic of dropsy. The swelling was uniform, did not pit on pressure, but the tissues were resilient and imparted to the fingers a tough, doughy sensation.

These cases present in the main the points for the diagnosis of this disease. I will recapitulate: The patients are generally adult females. The face is swollen so as to suggest renal disease, which is eliminated by negative signs. The swollen skin is waxy looking and anæmic, and does not pit on pressure. The œdema becomes uniform. The cheeks are overspread with a dull pink flush. Hands lose shapeliness and fingers spade like. In the early stages there is an ever-increasing hebetude involving sensation, voluntary movement, and intellect; in the latter stages aberration of mind often supervenes, the face wears a fixed expression, the speech is slow, voice monotonous, sensation slow but sure. The movements of the limbs are slow and languid; standing requires an effort and falls are frequent. In many cases there is tardiness, but not loss, of co-ordination. The special senses are but slightly affected. The temperature of the body is always below normal. The viscera seldom give signs of disease.

Death comes either by coma, uræmic poisoning or inanition.

I have collected from various sources records of 30 cases, and I find a history of phthisis in two cases, syphilis in two, acute fever in one, pregnancy preceding the disease in two cases. Nearly all of the cases occurred in adult married women, the majority of whom had each borne several children. Only three cases were males. Uterine disease does not seem to figure as a cause of the disease. Albumen was present in twelve of the thirty cases. So far as discovering the cause of the disease is concerned, we must confess our inability to do so at present. Dr. Moravan believes "the disease to be due to a neurosis of the central nervous system, affecting the afferent portion of the motor nerves, both of animal and organic life, they becoming paralyzed." Dr. Mohammed, London, contends that "the disease is due to the chronic œdema of recognizable, or unrecognizable, Bright's disease." The presence of mucin he believes "to be due to an attempt at organization of the chemically œdematous connective tissue." Dr. Ord believes the disease "to be due to the deposit of mucin in the connective tissue." In this way he accounted for the œdema, loss of sensibility of the cutaneous surface and the various nervous phenomena. He believed the mucin acted as a *pad* about the nerves, hindering the propagation of nervous impulses; the central nervous symptoms he believed to be secondary to this hindrance.

Dr. Hamilton, of New York, believes the disease to be of neurotic origin. He says: "Dr. Cashier has found cell degeneration in the giant cells of the anterior horns, as well as the gray matter of the posterior columns. No examination has yet been made of the sympathetic ganglia, and none, so far as I know, of the brain, medulla, or cervical cord—at least no microscopical examination. I believe, however, that when such an examination is made, there will be found lesions of importance. The early appearance of bulbar symptoms and mental disturbance, are, in my mind, suggestive indications that the disease *originates* in the higher center, and not in the cord." The disease then extends to the lateral and posterior columns of the cord, and the cutaneous trophic changes are the result of this extension.

So far, then, are records of four post mortem examinations,

The result has been almost uniform. In all, there was found effusion in the serous sacs. Heart flabby and dilated. Connective tissue everywhere increased in quantity and mucoid in character, its fibrils distinct, nuclei large and distinct, arterials thickened and caliber diminished. Increase in the stroma of liver, kidneys, skin, muscles and spinal cord, the connective tissues in all the cases having undergone the same mucoid retrogression. Dr. Ord, in two cases, found the mucin had increased fifty fold.

The prognosis of myxoedema is very unfavorable. The onward march of the disease is slow but sure. Years pass by and still the patient lives on, however, with the addition of new symptoms. Towards the latter stages of the disease renal trouble supervenes, and the patient rapidly becomes worse. Albumen and tube casts become abundant, the arterial tension is raised, the heart labors more heavily, decided failure of the memory, more or less delirium, and an idiotic aspect of the patient, all indicate that the patient is nearing the end of life. Eventually, with a greatly reduced temperature, the patient dies, comatose, or from inanition.

All treatment has failed to be of any avail. The treatment which is most to be commended is tonic and hygienic. Some have claimed the greatest efficacy for the milk diet; Ballet reporting one case of several years standing in which the milk treatment was followed by a decided amelioration of the symptoms, the skin becoming more supple and the swelling subsiding. Sulphur baths and iodide of potash have been highly recommended.

Dr. Mohammed reports a case in the *Lancet* in which he used nitro-glycerine with the intention of relaxing the arteries, thus reducing the arterial pressure in the capillary circulation. Severe purgations were administered at the same time for the same purpose. Quite a marked improvement took place, but recovery did not ensue. Dr. Hamilton states that in one case he derived much benefit from administering nitro-glycerine, gr. 1-50 three times a day.

In conclusion, I think we may regard myxoedema as a neurotic disease, implicating the trophic and sympathetic nervous

systems. I cannot but, also, believe that the lymphatic system is quite at fault. The increase of mucin is doubtless due to the primary invasion of the lateral and posterior columns of the spinal cord, and, also, to a defective action of the lymphatic vessels in performing their functions. The increase of mucin undoubtedly follows defective elimination. We must necessarily regard the disease as retrogressive and fatal.

ARTICLE IV.

POTATOES AND TOBACCO: THEIR INTRODUCTION INTO EUROPE.

By HENRY M. LYMAN, A.M., M.D., Professor of Physiology and of Diseases of the Nervous System, Rush Medical College, Chicago.

Three hundred years ago our ancestors suffered untold misery from scorbutic and gouty disorders, induced through the lack of fresh vegetable provisions during the long, cold winters of Northern Europe.* During the summer months, "asparagass," spinage, celery, radishes, carrots, cabbages, and turnips were raised in tolerable abundance, and the rich could lay up for the winter good store of dried apples, currants, and gooseberries, with candied cherries, plums, and various nuts; but for the masses nothing better than salted meats, dried fish, old cheese, and much home-brewed beer could be obtained. So late as the reign of Queen Anne it is recorded† that—

"Fruit is brought only to the Tables of the Great, and of a small number even among them. The Desert they never dream of, unless it be a Piece of Cheese."

The same author writes:‡

"The English eat a great deal at dinner; they rest awhile, and to it again, till they have quite stuff'd their Paunch. * * * I have known several people in England that never eat any bread, and universally they eat very little: they nibble a few crumbs, while they chew the meat by whole mouthfuls. * * *

* Carpenter's *Physiology*, 8th ed., pp. 93-4.

† "Social Life in the Reign of Queen Anne," p. 149.

‡ *Op cit.*, p. 141.

Among the middling sort of people they have ten or twelve sorts of common meats which infallibly take their Turns at their Tables, and two Dishes are their Dinners: a Pudding, for instance, and a Piece of Roast Beef: another time they will have a piece of Boil'd Beef, and then they salt it some Days before hand, and besiege it with five or six Heaps of Cabbage, Carrots, Turnips, or some other Herbs or Roots, well pepper'd and salted, and swimming in Butter. * * * When they have boil'd meat, there is sometimes one of the Company that will have the Broth; this is a kind of Soup, with a little Oatmeal in it, and some Leaves of Thyme or Sage, or other such small Herbs."

At the taverns a gentleman would have "a whet of old Hock to sharpen his appetite for dinner, which consisted of two calves' heads, a couple of geese, and Cheshire cheese."§

No physiologist can be surprised that after such a highly nitrogenized meal "they all fell to drinking wine;" nor is it difficult to comprehend the significance of the child-like delight with which the early English slave traders and buccaneers made trial of the fruits and vegetable of the tropics. Witness Capt. John Hawkins, sailing from Africa with his goodly fleet of ships—the Swallow, the Tiger, the Solomon and the Jesus—all well laden with Samboes and Tangomangoes, captured in Sierra Leone for the South American slave market. The voyage was delayed by calms and tornadoes; the life-ship's crews sweltered under the equatorial sunshine till, in the words * of the quaint old chronicler, they were "put in such fear that many never thought to have reached the Indies without great death of negroes and of themselves; but the Almighty God who never suffereth his elect to perish, sent us on the 16th of February, the ordinary breeze, which is the northeast wind, which never left us till we came to an island of the Cannibals called Dominica." The sailors could there obtain no refreshment; but after beating about the coast for ten or eleven days, they at length found a watering place at Santa Fé, near Cumana. "Near about this place inhabited certain Indians, who the next day after we came thither came down to us, presenting mill and cakes of bread, which they had made of a kind of corn called maize, in bigness of a pease,

‡ Op. cit., p. 142.

* Voyages of the Elizabethan Seamen to America. Pp., 21-22.

the ear whereof is much like to a teasel, but a span in length, having thereon a number of grains. Also they brought down to us hens, potatoes, and pines, which we bought for beads, pewter whistles, glasses, knives, and other trifles. These potatoes be the most delicate roots that may be eaten, and do far exceed our parsnips or carrots. Their pines be of the bigness of two fists, the outside whereof is of the making of a pineapple, but it is soft like the rind of a cucumber, and the inside eateth like an apple; but it is more delicious than any sweet apple sugared."

A few weeks later, again reduced to straits for water, our bold captain made the acquaintance of the Indians upon the coast of Florida, where the French were vainly attempting a settlement under the ill-fated Landownière.

"These Indians," writes the chronicler, † "when they travel have a kind of herb dried, who, with a cane and an earthen cup in the end, with fire, and the dried herbs put together, do suck through the cane the smoke thereof, which smoke satisfieth their hunger, and therewith they live four or five days without meat or drink, and this all the Frenchmen used for this purpose; yet do they hold the opinion withal that it causeth water and steam to void from their stomachs."

This was in the year 1565—a year memorable for the introduction of the English to the two American plants which have since revolutionized the dietary of the world.

And yet, notwithstanding the praises of Sir John Hawkins, it was long before the English at home learned to know the value of the new discovery. It was in the year 1586 that the famous voyager, Sir Francis Drake, returning from an expedition to the Spanish Main, carried home to Portsmouth a few roots of the potato.* These were divided between his friends the botanists, Gerard and Clusius. It is probable that the plant had already been carried to Spain, but the grape-loving Spaniards did not highly appreciate the gift. Two years later the brilliant adventurer, Sir Walter Raleigh, a particular friend of Drake, appears upon the bank of the Blackwater, in the south of Ireland, dwelling in a fine old manor-house, long and low, with walls five feet thick, with deep projecting bay windows and porch, orieled

†Op. Cit., p. 46.

*Dic. Encyc. des Sci. Med. Art, Morelle.

closet, high-pointed gables, and great towering chimneys. . . Here, in the sunny corner, where the town wall of the twelfth century still "bounds the garden of the warden's house, * * * the first Irish potato was planted by him," from the stock brought over by Drake, "and in that garden he gave the tubers to the ancestor of the present Lord Southwell, by whom they were spread throughout the province of Munster."† From Ireland to England, and thence to Germany, was extended the culture of the potato and its companion plant, tobacco. This last herb proven itself the more popular of the two, so that it is recorded‡ that "in Charles the Second's time, in Worcestershire, it was not only usual for the women to join the men in smoking, but that the children were sent to school with pipes in their satchels, and the schoolmaster called a halt in their studies while they all smoked—he teaching the neophytes." Fully two hundred years elapsed, however, before the French had learned the value of the root which had banished scurvy and famine from the homes of the poor. The Erckmann Chatrian "History of a Peasant" very dramatically pictures forth the derisive doubts and the superstitious suspicion with which the simple Alsatian country folk, in the days just preceding the French Revolution, looked for the first time upon the "Hanoverian roots," as they were then called. They would not believe that a *root* could be made to reproduce itself. "Oh, no, you must plant a seed if you would have a crop. Who ever heard of raising carrots and turnips from the root!" And if these things should grow, how could they bring anything but the curse of the heretic Germans by whom they were sent into the holy land of France? Even after it had been demonstrated that potatoes could be raised by Frenchmen, there still remained a widely prevalent belief that eating them would cause the leprosy. It was only when a gentleman, named Parmentier, had prevailed upon the good-natured Louis Sixteenth to eat a potato in full view of the admiring public who daily thronged the royal dining hall, in accordance with the customs of the time, to witness the gorgeous spectacle of their king at his dinner, that the people generally could be persuaded to taste the foreign vegetable. .

†Nineteenth Century, Nov., 1881, p. 680.

‡Social Life in the Reign of Queen Anne, p. 157.

ARTICLE V.

THE CHOLERA SCARE.

The Chicago Daily News has been obtaining the views of physicians and sanitarians with reference to the probability of Asiatic cholera visiting this country next year, and their opinion as to what should be done by municipal authorities and households to avert an epidemic of that pestilence. The questions are of interest to our own citizens as well as to those of Chicago, and the replies may be summarily stated to be overwhelmingly in favor of the probability of the next summer witnessing an invasion of the dreaded disease, and of the urgent necessity of "cleaning up" in every possible way.

Among those whose views and advice were sought was Dr. Frank Reilly, of this city, the Assistant Secretary of the State Board of Health. The doctor declines to guess as to the question whether cholera will or will not come next year, but points out that the same conditions which would favor its spread, if it should come, cause every year an enormously larger mortality than epidemics themselves do. The following is the text of his letter:

MY DEAR SIR:—I am, this evening, in receipt of your circular of inquiry, forwarded to me from Chicago, and in which you ask a brief statement of my views "as to the probability that this country will suffer from the threatened epidemic" of Asiatic cholera, and as to the precautions which should be adopted, etc.

I am reconciled to the fact that my "views" concerning such a probability are worth no more than, if so much as, those of the editor of a metropolitan newspaper, with his facilities for judging of probabilities, by the other fact that epidemics are by no means unmixed evils. It was the recurrence of cholera epidemics which directly led to the first attempt at sewers in Chicago, and the present system of water supply. It was the recurrence of yellow fever epidemics in Memphis which led to the sanitary regeneration of that city. It was the recurrence of epidemics of both diseases which resulted in the magnificent sanitary work, educational and practical, of the New Orleans auxiliary sanitary association.

The salutary spur of an occasional epidemic outbreak seems to be necessary in order to secure any decent amount of attention to the care of the public health, at least while the sanitary schoolmaster is so much abroad as at present. In any prolonged exemptions from such visitations communities become lax, and gradually grow to tolerate conditions which result, directly or indirectly, in an enormously greater aggregate of mortality than that caused by an epidemic.

For example: The class of diseases to which Asiatic cholera belongs, and which are all more or less preventable, caused 5,136 deaths in an aggregate mortality of 13,324 in Chicago last year. In 1881 it caused 5,985 deaths out of a total of 14,101. This is an average of 40 per cent. of the total mortality. The last epidemic of cholera (1873) caused only 3,825 deaths in the whole country—nineteen States being invaded. There had been no epidemic cholera in the United States for six years previous, since 1866; but during those six years, not less than 125,000 persons had been carried off by the group of diseases most closely resembling it.

The moral of these figures seems to me no less obvious than that of the tables in the report of the Health Department, recently issued. Take from this report the table of zymotic mortality by wards and compute the ratio of this mortality to population. The result will furnish a very accurate index of the sanitary status of each ward. Where the zymotic mortality is greatest, there will be found the most overcrowding, the greatest amount of personal uncleanness, the greatest want of sewerage, the most neglected scavenging, the most abundant and various filth, both surface and subterranean. Epidemic cholera might temporarily increase the death-rate under these conditions, but the average mortality for a series of years would not be materially affected.

Enough, however, in this strain. I suppose there is no prosing nor prophecy so insupportably dreary as that of the sanitary Cassandra. By way of amends, let me offer the following series of propositions concerning Asiatic cholera, formulated in a report which I drew up in 1875, at the request of Surgeon-General John M. Woodworth, of the marine hospital service, and under

whose name it was published, in the volume entitled "The Cholera Epidemic of 1873 in the United States."—(Ex. Doc. No. 95, H. R. XLIII^d Congress, 2d session.) These propositions are based upon a vast mass of cumulative evidence collected by cholera students in both hemispheres, and were originally intended to bear solely upon the question of the exclusion of the disease from this country. They will be found, however, equally applicable to methods of stamping out the disease should it effect foothold, and to the personal protection of the individual.

I. Malignant cholera is caused by the access of a specific organic poison to the alimentary canal; which poison is developed spontaneously only in certain parts of India (Hindustan).

II. This poison is contained primarily, so far as the world outside of Hindustan is concerned, in the vomit, stools, and urine of a person already infected with the disease.

III. To set up anew the action of the poison, a certain period of incubation, with the presence of alkaline moisture, is required, which period is completed within one to three days; a temperature favoring decomposition, and moisture or fluid of alkaline reaction, hastening the process, the reverse retarding.

IV. Favorable conditions for the growth of the poison are found (1) in ordinary potable water containing nitrogenous organic impurities, alkaline carbonates, etc.; (2) in decomposing animal and vegetable matter possessing an alkaline reaction; (3) in the alkaline contents of the intestinal portion of the alimentary canal.

V. The period of morbid activity of the poison—which lasts, under favorable conditions, about three days for a given crop—is characterized by the presence of bacteria, which appear at the end of the period of incubation and disappear at the end of the period of morbid activity. That is to say, a cholera-ejection, or material containing such, is harmless, both before the appearance and after the disappearance of bacteria, but is actively poisonous during their presence.

VI. The morbid properties of the poison may be preserved in posse for an indefinite period in cholera-ejections dried during the period of incubation, or of infection matter dried during the period of activity.

VII. The dried particles of cholera poison may be carried (in clothing, bedding, etc.) to any distance, and when liberated may find their way direct to the alimentary canal through the medium of the air—by entering the nose and mouth and being swallowed with the saliva—or, less directly, through the medium of water or food in which they have lodged.

VIII. The poison is destroyed naturally either by the process of growth or by contact with acids: (1) those contained in water or soil; (2) acid gases in the atmosphere; (3) the acid secretion of the stomach.

IX. It may be destroyed artificially: (1) by treating the cholera-ejections, or material containing them, with acids; (2) by such acid (gaseous) treatment of contaminated atmosphere; (3) by establishing an acid diathesis of the system in one who has received the poison.

For the non-professional reader the pith of these propositions is contained in the last two—the eighth and ninth. Nothing has since come under my observation to change the conviction arrived at, when these propositions were framed, namely: That the mineral acids may be relied upon as a certain means of preventing the spread of the Asiatic cholera.

FRANK W. REILLY, M.D.,

—*Illinois State Register.*

Springfield, Ill., Sept. 12.

A CARD TO THE PUBLIC.—We have just received from Bloomfield, Iowa, a “dodger,” or street hand-bill which reads as follows:

“Dr. J. E. Harper, A.M., M.D. Professor of Diseases of the Eye and Ear in the College of Physicians and Surgeons of Chicago, expects to visit me next Saturday to remain a few days. I would be pleased to meet all who have diseased eyes or ears at my office during his stay here. Respectfully,

“J. B. FINDLEY.”

The style of the hand-bill can not be reproduced here, as some of the letters are two inches in length. If this kind of advertising is all right, we would be glad to know it. For information, we call upon the State Boards of Iowa and Illinois.—(*Peoria Medical Monthly*, Sept., 1883).

Society Reports.

ARTICLE VI.

FRATERNAL.

A reception to Sir William MacCormac, by the Chicago Medical Society, was the feature of a special meeting of this society at the Grand Pacific Hotel on the evening of the 26th ult., to greet this eminent Senior Surgeon of St. Thomas Hospital, London, who had obligingly remained in the city two days longer than he had previously decided upon doing.

Prof. S. J. Jones and Dr. R. G. Bogue escorted Sir William to the parlor that was well filled by the members, and presented to Prof. D. W. Graham, the president, who welcomed him in a most appropriate manner, and then introduced the distinguished visitor.

His response and preliminary remarks were most pleasantly complimentary to those present, after which he proceeded to give a very interesting address of much scientific value to the assembled physicians. This was of a full hour's duration, and his accent was so accurate that one would scarcely be reminded by it of the presence of a typical Englishman.

The first subject treated was that of plastic surgery, and he cited instances in his own practice treatment for deformities caused by burns; illustrations of this accident occurring about the hip, knee, breast, and cervical region were given.

Rhinoplasty was next dwelt upon, and cases were cited where he had been successful in transplanting skin from the arm and restoring the contour of the nose, as this prominent and useful organ is regarded as being quite indispensable to a regular and

well outlined facial expression. The talented speaker subsequently dwelt quite minutely upon the practice of feeding the flaps in this and other surgical operations. Then the operation for extroversion of the bladder, and the various points illustrating this operation were made by drawing upon the blackboard with colored chalk as the lecturer proceeded. Sir William then passed somewhat hurriedly (for want of more time) to abdominal surgery. Operations here should be performed at two intervals, and this was especially true in "gastrostomy." First there should be performed (what he was pleased to term) an exploratory operation, to be followed in a few days or weeks, by an opening into the œsophagus or stomach, which could be done safely with proper precautions. Œsophagotomy, gastrotomy and gastrostomy and operations on the liver for the removal of hydatid cysts he had performed successfully with much relief and benefit to patients. Two cases of malignant disease of the stomach occurring in men, aged respectively 55 and 42, in his private practice were reported. Both patients had become greatly emaciated, anæmic and exhausted from inanition. In the oldest case the patient wanted a little more time to set his affairs in order; desired Sir William to make an incision in his stomach which was accordingly done, as above described, to the great benefit of the sufferer, who was not only relieved of the pain but derived great satisfaction in having the distress of hunger ameliorated by being fed through the opening in his side. The man became apparently at once in good health, visited the sea side, smoked a number of cigars a day, and thus lived 100 days in comparative comfort and luxury. The man expressed profound thanks for the relief afforded him; knew his time was approaching, but he had been relieved in whole, or for most of the time, from the great distress and constant acute pain.

In the other case spoken of, the patient had the same assemblage of symptoms, and was dying from the effects of the excruciating pain and debility dependent upon exhaustion, starvation, etc. The cancer had nearly closed the œsophageal opening into the stomach. He was operated upon in a similar manner as in the first case, and relief followed the surgical procedure. He was

also fed through the opening by artificial means, and lived some six or seven months in this way.

Operations on the parenchyma of the kidney and body of these organs were alluded to for the various surgical maladies that may be seated there, or for traumatic lesions occurring to either organ. Operations for the different forms of hernia were dwelt upon as minutely as time would permit. The strangulated, inguinal, femoral and scrotal forms were each described, also the method of "dissecting out" the sac in which they may be enclosed, *et cetera, et cetera*. The treatment of gun-shot wounds, especially those in the late Egyptian war, received especial mention; that during the whole of it, though the troops suffered severely and endured much from want of water and from other causes of privation, there was not a single case of erysipelas, pyæmia or gangrene. The English Surgeon's work was the finest ever done in war, although many complaints in the public press had been made against them for their not using antiseptics and anæsthetics. This, however, has been proved to be untrue.

The antiseptic remedies, including Listerism, were methods largely employed by their surgeons, and regarded by them as surgical cleanliness. Regarding anæsthetics, he spoke of these as boons and great blessings, discovered by American scientists; but the value of anæsthesia, in making operations painless is indescribable, and compared to the dire suffering a poor fellow formerly had to undergo in amputation, was beyond fitting words for him to express. Besides these great advantages, pyæmia and septicæmia are of much less frequency, or rare, when both an anæsthetic and antiseptic are used.

He closed his address by asking, What is surgery? After all, surgery is the work of the hands; but the surgeon's head and his heart he must use. He had met all these requisites in this wonderful city of Chicago, which to read about, how she arose from the ashes a few years since, like an Arabian Night tale. He had received from every one the greatest hospitality and kindness, which he regarded as due to the fact that he was an English surgeon. All here and in Great Britain speak the same language and belong to a mother country. He desired to return

thanks for the many kindnesses received. Sir William's remarks were greeted with sincere delight and loud applause.

President Graham announced that any who desired to speak, or to ask our their guest any question, were at liberty to do so.

Prof. N. S. Davis arose to say how little we appreciate what we do. The head plans, the hand is trained, and the heart pulsates, and pushes us on to devise operative appliances. Forty to fifty years ago, when he began practice, opium was given to relieve the pain, and antimony to relax the muscles, to prepare a patient for an operation, for then anæsthetics were unknown. He began his professional career with the idea of following surgery, but gradually drifted into a medical practice, because of locating in a somewhat rural district; but the progress of modern surgery in the past half century had been most wonderful. He responded fully and cordially to the sentiments of the fraternal and professional feeling between the profession in this and the mother country. They had a common language and common interests, and they all wished our honored guest many years of happiness, and many years to continue adding to the sum of human knowledge.

Prof. Charles T. Parkes expressed his great interest in the many points he had gained to-night from our distinguished guest, and spoke briefly upon the general subject of operative surgery, adducing instances in his own practice, especially one case of restoration of the ear. He was much pleased with the plan of treating strangulated hernia, by removing the sac entirely. He was also greatly pleased with the treatment called antiseptic surgery, as he thought these ideas were becoming lukewarm in the mind of the profession in this city. He closed with kind wishes and fraternal expressions for Sir William and the profession in England.

Prof. Moses Gunn said he had twenty-five years ago practiced the methods of feeding flaps spoken of by Sir William, and illustrated by the narration of a case of rhinoplasty to build up a chin that was missing. The dressings consisted of basilicon ointment and "*bandaging*" the parts. He had followed the remarks of the distinguished visitor with great interest, and heartily concurred in the remarks as to advantages of antiseptic surgery, which is surgical cleanliness, and Lister's method as the most ad-

vantageous, but he had abandoned the spray. However, the other details of antiseptic principles he followed out closely. The relations of the profession on both sides of the Atlantic were spoken of, and described in the same language. All have the same friendly feeling named by Prof. Davis, and it gave him the same pleasure to extend a courteous greeting.

Upon motion of Dr. C. G. Smith, that the thanks of the Society be tendered Sir William MacCormac, for his disseminating knowledge of some of the great surgical questions of the day, and also for the kind expressions of his good will to members of the profession in America, the meeting adjourned; which soon after, however, resolved itself into an informal "social and reception." A number of lady physicians were present. Besides these a number of scholarly gentlemen outside the profession were noticeable, who, with the members of the Society, were introduced, to say a few words and shake hands with the guest of the evening.

A number of regrets were received from those who were unavoidably absent.

Good-bys were spoken at a late hour with united regret on the part of "host and guest," mingled with much pleasure from all present in the experience of a profitable evening. L. H. M.

Reviews and Book Notices.

ARTICLE X.—DISEASES OF WOMEN. A Manual for Students and Practitioners. By ARTHUR M. EDIS, M.D., Lond., F.R.C.P., M.R.C.S., Assistant Obstetric Physician to the Middlesex Hospital, Consulting Obstetric Physician to the City Provident Dispensary, etc., etc.

Few, if any, manuals on the subject of gynæcology before the profession are written in as clear, concise and comprehensive a manner as this one. It contains thousands of excellent hints as

to care and details in treatment of patients, which will prove of the greatest value to the young practitioner.

The author gives considerable prominence to uterine displacements and their treatment by mechanical means, although he cautions the practitioner against placing too much reliance upon mechanical appliances.

The differential diagnosis of abdominal tumors is tabulated, as far as practicable, for the convenience of the busy practitioner. and is given in the most exhaustive manner. E. M. N.

ARTICLE XI.—TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY FOR 1880.

Volume 5 is before the public. This is a neatly bound volume containing 450 pages.

The papers were prepared and read by some of the most distinguished men of the medical profession of the United States and the discussions were most able. Among the papers read which were of more than ordinary interest, may be mentioned : "What is the Proper Field for Battey's Operation," by Dr. Robert Battey ; "Extripation of an Encephaloid Kidney," by Dr. W. H. Byford, and "Posture in Labor—An Ethnological Study," by Dr. G. J. Engelmauer. E. M. N.

ARTICLE XII.—A CLINICAL HAND-BOOK ON THE DISEASES OF WOMEN. By U. SYMINGTON BROWN, M.D., Member of the Gynæcological Society of Boston, Fellow of the Mass. Medical Society, etc.

The author does not claim that this book is a treatise but acknowledges omitting all that would not be of much practical use to the student and practitioner. Certainly the most noticeable feature of the book is its incompleteness. The author divides the subject in the usual order and gives the most salient points in a very clear and readable manner. E. M. N.

ARTICLE XIII.—THE GROUNDS OF A HOMŒOPATH'S FAITH. By SAMUEL A. JONES, M.D, Professor of Materia Medica and Therapeutics in the Homœopathic Medical College, the University of Michigan.

This little book consists of a series of three lectures delivered before the medical matriculants of the University of Michigan.

The first lecture is entitled "The Law of Similars," but for the greater part is a sentimental sketch of the life of "the faith-filled man," Samuel Hahnemann. He differentiates this school of medicine in the following words: "If I were asked to state what chiefly distinguishes the homœopathic physician from his older brother in the science and art of medicine, I should at once reply: Not the law of cure, not the infinitesimal dose, not the Hahnemannian hypothesis of chronic diseases; none of these, but simply this—his fixed faith in the efficiency of drugs."

The topic of the second lecture was: "The Single Remedy a Necessity." He speaks of the aid chemistry has been in medicine as: "A tale for the medical 'marines,' an apple of Sodom, a mirage, a humbug," and adds: "Chemistry can no more foretell the physiological action of a compound than I can imagine what the Dean of the 'Department of Medicine and Surgery' would say if he woke up some morning and found himself in bed with a homœopath."

The third and last lecture, "The Minimum Dose," abounds with logic as profound as the two previous lectures, and closes with a touching appeal for sympathy because of the persecution homœopathy had received. A physician might make this book quite valuable to him by lending it to his friends who have some regard for homœopathy; it would cure them. E. M. N.

ARTICLE XIV.—ON THE USE OF THE COLD PACK FOLLOWED BY MASSAGE IN THE TREATMENT OF ANÆMIA. By Mary Putnam Jacobi, M.D., and Victoria A. White, M.D.

The writer gives the clinical histories, with a consideration of the results, of eleven anæmic patients treated as the title of the book would indicate: a cold pack from ten minutes to an hour's duration, followed by massage for one hour. This treatment

was used from the belief that it would increase the stupidity of tissue metamorphoses, thus promoting assimilation. Carefully prepared tables were made, showing the comparative amount of urea, urine and inorganics eliminated during the treatment, with the amount eliminated during the hours between treatments. Nine of the cases, who received this treatment every day for six weeks, were greatly benefited, while two, who were nevertheless under the same treatment, remained unimproved. The book is a very readable one.

E. M. N.

ARTICLE XIV.—WHAT TO DO FIRST IN ACCIDENTS AND EMERGENCIES. By Chas. W. Dulles, M.D. Second edition, revised and enlarged.

This beautiful little book has not lost its attractiveness in its revision and second edition. Of handy size for the pocket or satchel, its companionship is of value to the traveler or mechanic in his workshop. Accidents and emergencies most liable to occur in common life are suggested, and simple, practical direction given for the first proceeding; not to take the place of calling the physician or surgeon, but to fill up with timely action the fateful moments before the skilled assistant arrives. The matter is arranged in most convenient form, well indexed and preceded by a table of contents.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

HISTORY OF TUBERCULOSIS. From Dr. Arnold Spina, translated by Sattler. Cincinnati: R. Clark & Co.

LETTSONIAN LECTURES ON VALVULAR HEART DISEASE. Sansom. Chicago: W. T. Keener. Philadelphia: Blakiston, Son & Co.

TREATMENT OF DISEASES OF CHILDREN. Goodwin. New York: C. H. Goodwin.

EXCISION OF THE KNEE-JOINT. Fenwick. Montreal: Dawson Bros.

REPORT OF THE SECRETARY OF WAR. 1880. Vol. IV.

RECORD FOR THE SICK ROOM. Blakiston, Son & Co. Chicago: W. T. Keener.

TEXT-BOOK OF PATHOLOGICAL ANATOMY. Ziegler. New York: W. M. Wood & Co. Chicago: W. T. Keener.

GRAY'S ANATOMY. Tenth Edition. Philadelphia: Henry C. Lea's Son & Co. Chicago: Jansen, McClurg & Co.

SOHLBERG WELLS ON THE EYE. Philadelphia: Henry C. Lea's Son & Co. Chicago: Jansen, McClurg & Co.

HAND-BOOK FOR HOSPITALS. New York: G. P. Putnam's Sons. Chicago: Jansen, McClurg & Co.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE. Washington: Government Printing Office.

PRINCIPLES AND PRACTICE OF SURGERY. Agnew. Philadelphia: Lippincott & Co. Chicago: S. A. Maxwell & Co.

HEWITT'S DISEASES OF WOMEN. Sims. 2 Vols. New York: Birmingham & Co.

GENITO-URINARY DISEASES AND SYPHILIS. Otis. New York: Birmingham & Co.

PRACTICAL MANUAL OF DISEASES OF CHILDREN. Ellis. New York: Birmingham & Co.

AITKEN'S HAND-BOOK OF TREATMENT. New York: Birmingham & Co.

WOOD'S MATERIA MEDICA AND TOXICOLOGY. Fifth Edition. J. B. Lippincott & Co.

QUIZ' COMPENDIUM. MATERIA MEDICA. Philadelphia: P. Blakiston Son & Co.

THE TREATMENT OF WOUNDS. Pilcher. New York: Wm. Wood & Co., Medical Library, August. Chicago: W. T. Keener.

CLASSIFICATION, DIAGNOSIS, AND TREATMENT OF INSANITY. Spitzka. New York: Birmingham & Co.

DISEASES OF THE EAR. Pomeroy. New York: Birmingham & Co.

STUDENTS' MANUAL OF CHEMISTRY. Wetthaus. New York: Wm. Wood & Co.

A GUIDE TO THE MEDICAL STUDENT IN EUROPE. Hun. New York: Wm. Wood & Co.

A TREATISE ON THERAPEUTICS, COMPRISING MATERIA MEDICA AND TOXICOLOGY, WITH ESPECIAL REFERENCE TO THE PHYSIOLOGICAL ACTION OF DRUGS TO CLINICAL MEDICINE. By H. C. Wood. Philadelphia: J. B. Lippincott & Co. Chicago: S. A. Maxwell & Co.

The fifth edition of this excellent book follows fast upon the fourth. The latest additions to the Pharmacopœia are incorporated, the whole work revised and enlarged, keeping well abreast of the most recent therapeutic literature of the present day. A compact volume of over 700 pages.

PAMPHLETS.

Anomalies in the Circulatory Apparatus.—Winslow.

Erysipelas, Purpura, and Gangrene.—Meachem.

Remarks on Hydrophobia.—Dulles.

Recent Advances in the Surgery of the Urinary Organs.—Harrison.

General Paralysis of the Insane.—McFarland.

A Rectal Obturator.—Prince.

The Bead Suture.—Prince.

Heart Puncture and Heart Suture.—Roberts.

Treatment of Opium Addiction.—Mattison.

Clinical Notes on Opium Addiction.—Mattison.

The Curability of Opium Addiction.—Mattison.

Neurotic Pyrexia and Opium Addiction.—Mattison.

Treatment of Bubo.—Lydston.

Hypodermic Treatment of Syphilis.—Lagorio.

Removal of Both Ovaries.—Etheridge.

Post-Partum Malarial Fever.—Burdick.

Exterge Oculum.—Eggemann.

Antiseptic Remedies in the Treatment of Diseases of the Eye and Ear.—Holmes.

Report of Illinois State Board of Health, June, 1883.

Editorial.

AS TO CANADA.

Time was when the average citizen of the United States was supposed to spend his spare hours in devising plans for the annexation of Canada to his own country. As a matter of fact, he

now occupies himself more profitably upon more congenial subjects ; and gives about as much attention to the subject as to the slightly confused problems presented by the presidential succession in Mexico. He has indeed, perhaps, on occasion, run the gauntlet of the custom house officials on the dividing line between the two countries ; submitted without a murmur to the rate of discount with which his notes and silver were accepted ; looked out drearily upon the dismal panorama of wilderness and villages visible from the windows of the railway carriage ; gazed with something like astonishment upon the helmeted men and no less oddly-dressed women of the Dominion, playing with sad expression of countenance their fond part in the small theater where royalty is mimicked ; and then returned to Boston, New York, Philadelphia or Chicago, well cured of any delusions respecting the desirability of any more intimate union between the two countries than that which has been provided by nature.

To medical men and matters in Canada, the physicians of the United States have paid but little attention. They have occasionally read with a languid curiosity, references to the quarrels which, in the Dominion as elsewhere, serve to divert the average medical mind from the dull routine of professional toil. They have also known pretty generally that, while Canadian physicians were free to come and settle in all the United States, and to practice in every part of them, without the necessity of surmounting greater barriers than the crude tests here and there provided by some State Board ; on the other hand, the graduates of medical schools of the United States were excluded from similar privileges by the intervention of laws which practically forbade emigration thither. Thus much they knew, but they cared little for it. This was too large, that too small a field, to present anything but a contrast in favor of the former to the physician of education and experience.

They also observed a fact of some interest in this connection. Two classes of physicians they had the opportunity of observing in a progress hitherward from the Dominion. The one class, each man with a row of cabalistic letters after his name which only an expert could distinguish from the similar titles of the British Universities, deeming themselves of better medical breed-

ing than the physicians with whom they here came in contact, utterly failed of success as a consequence, and returned in disgust the land from which they came. The other class, accomplished, skillful, and wiser in the wisdom of this world, soon sank their nationality in an American citizenship, and achieved a consequent success which could otherwise have been reached only with difficulty.

Of all Canadian medical facts, however, those which are actually brought into greatest prominence before the profession in this country, are its medical journals. For years we have had the opportunity of glancing through their columns, and on each occasion have been impressed with a feature common to them all in successive years. This feature is the manifest extent to which they seem to be dependent for their maintenance and support upon the medical writers, publishers, and manufacturers of this country.

Look, for example, at their advertisements. We rather expect to find the average cross-roads medical journal in the land of the Yankees, eking out a precarious existence by noticing the success of the Messrs. Brown in sugar-coating their pills, and of the Messrs. Jones in the sale of their vaunted and valuable "Pathine." It is true that the utterances of its editor and the outgivings of his correspondents do not possess the authority which under more favorable circumstances they might enjoy. But what of that? Are they not all our brethren? How, under heaven, could the Court and Nobility of the medical world set the fashions for a whole continent, if these little sheets did not waft their wise sayings and doings all over the face of it?

Ought we not, however, to look for greater things from the men who write after their names, M.B.; F.R.C.S.; L.R.C.S.; L.R.C.P.; F.O.S., and all the other letters of the bewildering alphabet of true greatness? Have the Yankee pill man and the "American" extract fellow, succeeded in subsidizing also them and their Press?

Here, for example, is the latest issue of the *Canada Medical Lancet*, our very respectable contemporary, which claims to have "the largest circulation of any medical journal in Canada." A

careful examination of the advertising pages furnishes us with the following items :

Thirty-six advertisements appear of articles supplied by the United States. Most of these notices are large, indeed, the largest printed, filling a three-fourths or entire page; some requiring several pages. Prominent among these are the announcements of our "preparation" men, whose enterprise on this side of the line has stocked the desk of the physician with samples which accumulate more rapidly than the office boy can dispose of them. Five medical schools of the United States, and four of Canada, are also here advertised, the notices of the latter being among the largest "native" advertisements in this issue, suggesting thus that even in the Dominion, the diploma industry is not without its tangible rewards. Here is also a full page bookseller's advertisement, announcing seventeen treatises whose authors or publishers were of this country; three of English authorship and imprint; two not stated. There are fifteen small "native" advertisements, being for the most part notices of practice for sale, medical cards, and minor announcements. Finally, there are six advertisements of articles furnished neither here nor in Canada.

Of the Selected Articles in this number, five are credited to this country, two to Great Britain, and the original source of one is not named.

There are eleven book reviews, ten of works of "American" authorship; one only of native growth, being an effort to teach the Canadians "How to Draw a Simple Will."

We have selected this number of this journal at random; and it is a very fair sample of what we are accustomed to see in the columns of our Canadian exchanges, and have so seen for many years past. The evidence is tolerably clear, that three-fourths of all the advertising support of the medical journals published in the Dominion, and probably a larger proportion of all books reviewed by them, are furnished on this side the imaginary line which divides the two countries.

There is food for reflection here, whose digestion we may well leave to our friends in Canada. There are few American physicians who can look inside of a Canadian medical journal and re-

press a smile. Often, indeed, they are in this way reminded of an incident, lately made public, connected with the transportation of the mails between the two countries. It was discovered, in the course of the international exchanges necessitated by the postal service, that the mail-bags of the United States had so accumulated in Canada that the latter country had found it quite unnecessary to provide any for her own use. And thus it came about that the postal matter there was distributed in mail pouches stamped with the emblem of a nation which Canadians for the most part affect to despise.

Selections.

NOTES OF A VISIT TO SOME OF THE ASYLUMS OF GREAT BRITAIN.

By EDWARD N. BRUSH, M.D., Assistant Physician, New York State Lunatic Asylum.

The opening of a short summer vacation found me in England, and it was with many anticipations of profit and pleasure that I resolved upon observing, as far as the time at my disposal would allow, something of the English methods of lunacy administration.

The institutions visited, and upon which the following notes are based, are named below in the order seen :

Name.	Superintendent.	No. of Patients.
Lancashire Lunatic Asylum, Lancashire Moor,	Dr. David Cassidy,	1,140
Royal Albert Asylum for Idiots, Lancaster,	Dr. G. E. Shuttleworth,	600
Royal Edinburgh Asylum for Insane,	Dr. T. S. Clouston,	830
Barony Parochial Asylum for Insane, Lenzie, Scotland,	Dr. James Butherford,	476
Glasgow Royal Asylum for Insane, Gartnavel,	Dr. David Yellowlees,	500
West Riding Lunatic Asylum, Wakefield,	Dr. Herbert C. Major,	1,400
Bethlem Royal Hospital for Lunatics, London,	Dr. Geo. H. Savage,	245
Middlesex County Lunatic Asylum, Colney Hatch,	Dr. Edgar Sheppard, Mr. W. G. Marshall,	2,200
Middlesex County Lunatic Asylum, Hanwell,	Dr. Henry M. Bayner,	1,800
Surrey County Lunatic Asylum, Brookwood,	Mr. James E. Barton,	1,100
Lancashire Lunatic Asylum, Frestwich,	Mr. H. Rooke Ley,	1,200

With but one trifling exception I was cordially received, and my questions were pleasantly answered upon all topics connected with asylum management and the treatment of the insane.

Though visiting Great Britain at the time of the usual summer vacation, I had the good fortune to find all but one of the medical superintendents at home. Dr. Clouston, of Morningside, unhappily for me, was absent for his yearly holiday.

Lancashire, where my first experience in English Asylums was gained, has a population of about three and a quarter millions, with 7,500 lunatics, while adequate asylum accommodation was, prior to the annexes, at Lancaster, Prestwich, Rainhill and Whittingham, provided for but about 4,000. The remainder are detained in workhouses or in the families of patients.

At the old asylum on Lancaster Moor over eleven hundred patients are excellently cared for under the superintendence of Dr. Cassidy.

The building, which is one of the oldest now in use for asylum purposes in England, hardly meets the modern ideas of hospital and asylum construction. The corridors are somewhat narrow and low, and the rooms are poorly lighted—some, indeed, depending solely upon the small transom over the door. Wherever possible, however, the superintendent has introduced light and color, and many of the sitting or day rooms appear cheerful and home-like.

In this asylum I saw some experiments in progress upon the effects of colored light upon the insane. One patient was in bed in an atmosphere of deep blue. I did not learn, what if any, results had been attained. I saw no restraint, nor did I see any patient who appeared in any way to need it. The wards were quiet to a marked degree, the only noise I heard coming from the airing court for refractory men. Curiously, the most troublesome patient in the house was an American sailor, for whom mechanical restraint had been necessary upon more than one occasion. Dr. Cassidy showed a museum or collection of restraining apparatus, which his predecessor and himself had carefully preserved, instead of doing as did an enthusiastic American superintendent, making a bonfire thereof. Perhaps this is only an illustration of the difference in mental constitution between the

two nations, the one conservative and considerate of the future, the other impulsive, radical and ready to make everything subordinate to a present opportunity to display social pyrotechnics.

Some of this apparatus was most ingeniously contrived, and when applied must have been "mechanical restraint" indeed. I thought when looking it over, it is not surprising that a reform in favor of non-restraint found ready welcome in England, if these appliances were in use.

Of the 1,140 patients accommodated at this asylum, but 226 sleep in single rooms. The dormitories are large and did not appear overcrowded. Night attendance is provided by twelve attendants, six for each sex. The suicidal and epileptic patients are under continuous night supervision, having two attendants for each sex, who have charge of the large dormitories where these patients are congregated. The faithfulness of the night attendants is tested both by inspection and by Dent's recording clocks. At the time of my visit to Lancaster, the large annex, practically another asylum, commenced in October, 1879, was approaching completion. It is built of red or brown sand stone quarried under the foundation, and will accommodate 700 patients, an equal number of each sex. I was informed that the cost of this building with forty-two acres of land, new lodge, laundry and mortuary, furnishing and the laying out of roads and grounds, would be about £110,000. The plan includes a large central administration building with kitchen and a dining hall 120 by 77 feet. A corridor 780 feet in length and 12 feet wide runs through the entire building, and on each side of the central building, at right angles to the corridor, are two large wings or pavilions. In this annex single rooms are provided for but forty-eight patients of each sex.

In the top story of the central building pleasant sleeping rooms are provided for the day attendants, it being intended to provide a night staff who shall have the whole responsibility of the night duty. By this provision Dr. Cassidy expects to have his day attendants enter upon their work in a fresh condition and better prepared to discharge their trying duties with the necessary evenness of temper.

The lavatories, baths, water closets and slop sinks, are placed in small detached blocks with covered connecting corridors.

Under Dr. Cassidy's guidance I visited the Royal Albert Asylum for Idiots, which is situated a short distance from the Lunatic Asylum. This Asylum is "established for the care, education and training of idiots and imbeciles of all classes belonging to the seven northern counties, viz.: Lancashire, Yorkshire, Cheshire, Westmoreland, Cumberland, Durham and Northumberland." By the census of 1871, there were of these two classes 29,452 in England and Wales, 8,104 of whom belonged in the seven counties above named. Of these last, 2,018 were between the ages of five and twenty. The asylum is under the able superintendence of Dr. G. E. Shuttleworth, and is largely supported by contributions and the income from legacies. The patients admitted to this asylum are of two classes, viz.: Free patients between the ages of six and fifteen whose friends are proved unable to meet the lowest payment; these are elected by vote of the subscribers and received for seven years, and paying patients, who are received at any time. The charges vary according to the requirements of the case and the circumstances of the friends. Unfortunately, at the time of my visit many of the pupils were away on their summer holiday, but I was able to see practical examples of the methods employed in the institution. At meals, with a very few exceptions, the inmates gather in a general dining room, where they sit under the supervision of teachers and attendants, being divided into groups in accordance with their various conditions. The school and work rooms are bright and cheerful, and the sleeping apartments everything that could be desired. Arrangements are made for such efficient night supervision that the accident which not long since happened in a similar institution in our own State, could not, I think, be repeated here.

Private patients may have, by the expenditure of a sufficient sum, a bedroom and parlor of their own, with a special attendant and other arrangements to correspond.

In the schoolrooms I saw pupils of all grades of intelligence pursuing various studies, from the simplest kindergarten exercises to complicated mathematical problems. The proficiency and

progress which some exhibited in drawing were quite remarkable. One young man showed with pardonable pride some very excellent conventional designs of his own, produced by the combination of geometrical figures, and flower and leaf outlines, which would do credit to an artist of much greater intellectual attainments. I examined some of his earlier attempts at drawing, and the progress exhibited spoke well for the care taken in his training.

Dr. Shuttleworth endeavors to make the education of his pupils as far as possible of a practical kind, and I saw boys acting as storekeepers, measuring out under the eye of the teacher various commodities by weight or measure to other pupils, who, for the time being, took the part of purchasers, and who were expected to calculate the price for a given number of pounds or quarts, and to check the storekeeper in any mistake of weight, or price charged. In this way I was informed these pupils were trained to be useful and trusty errand boys and messengers, so that when returning home their services could be utilized in this way among others. Under the head of school attainments of patients, the following subjects are included: Speech, reading, writing, arithmetic, clock lesson, shop lesson, color, music and drill. Of industrial occupations the following are reported: Tailoring, shoemaking, joinery, gardening, farming, work in the training shop, including picking hair, etc., mat. brush and basket making; and miscellaneous occupations, including laundry work, work in the kitchen and dairy, and other occupations of a like nature. The occupation of the girls is almost wholly in the line of sewing, knitting, and the ordinary domestic occupations. While passing through the building, Dr. Shuttleworth called my attention to a young man, then employed as an assistant to the storekeeper, who illustrated in a marked degree one of the phases of abnormal or imperfect mental development. On giving him any date of any month for a wide range of years, he would instantly and correctly tell the day of the week upon which it fell. I was informed that as his other faculties were being brought out by training and education, this peculiarity was less pronounced.

The medical care taken of the patients in this institution is in marked contrast with what I had observed at home. Instead of degenerating into a mere school, it combines in the best sense an

admirable hospital, scientifically administered, with an excellent training and educational establishment. Cases are carefully recorded in well kept case-books, and the material thus accumulated is utilized for the purpose of scientific investigation.

Dr. Shuttleworth appeared fully alive to all that was going on in his special line of duty and practice, and in his last report refers briefly to some of the work which he and his assistant have done toward contributing to the general stock of medical knowledge. American alienists in visiting England ought, by all means, to visit this admirable institution.

The Morningside institution, the Royal Edinburgh Asylum for the insane was next visited. As already stated, Dr. Clouston, the superintendent, whom I had the pleasure of meeting in America, was absent on his holiday, and my view of the institution was somewhat limited. This asylum receives both private and public patients. For the latter its charges are £80 per year, and this is also the lowest rate charged for private or pay patients. Those paying this rate are lodged and fed with the paupers, but I believe have certain privileges not granted to that class. The next higher rate for private patients is £45 per year, and from this point the rates extend up to £300, with special attendants, private apartments, etc., etc.

The buildings at Morningside are the East House and West House, which are the main establishments respectively for private and public patients, and Craig House and Myrside Cottage, which are both for the private class.

I saw some portions of East and West Houses; the other buildings I did not visit. Entrance to the grounds of Morningside, which through natural and artificial means are quite inviting, is gained only through carefully guarded gates at the Lodge. The entire estate is surrounded by a wall which, though not unscalable, would make sudden elopements difficult.

West House affords accommodation for about 700 patients. Its general plan and construction, with the exception of the preponderance of dormitories over single rooms, does not differ essentially from the ordinary American asylums. In the portions of the institutions which have not been renovated, I observed that the window panes were of small size, and that the entire sash,

which was immovable, was of iron. Ingress and egress of air through the window was obtained by leaving the upper half of this iron sash unglazed, and placing outside of it an ordinary wooden glazed sash, which could be lowered or raised as desired. In other portions, more especially the day rooms and dormitories, where patients were constantly under observation, ordinary sash were used, but these only opened a few inches. Meals are served the pauper patients in a large, common dining hall.

I went about the grounds and shops, and saw patients employed in various ways. My attention was attracted to a group of a dozen patients dragging a lawn roller or mower, and in other ways I saw patients occupied at various tasks, many of them to be sure simple, but at the same time giving them the beneficial influences desired. Among others I saw "Joe," the tin-smith, described as a dangerous man, with active delusions. He was busily hammering away at his bench, and in actions and appearance carried me back to a man I had left at home employed with the engineer at the asylum, and from the necessities of the case, frequently, almost wholly, free from custodial supervision. About the grounds I observed men and women patients associating freely together, some of whom were manifestly of the "excited" class, an arrangement which appeared to me to have many objectionable features.

Dr. Clouston has a strong belief in the beneficial effects of outdoor air and exercise, and I saw very few patients in the house, no fewer, however, than I had been accustomed to seeing at home in pleasant summer weather, but the general proportion of those who spend long periods out of doors during the year, is, I doubt not, larger than at home. He takes great pains in the training of his attendants, endeavoring to carry out the views which he has enunciated in his reports and in the *Journal of Mental Science*. He has established an infirmary ward, which in future is to be the probationary ward and training-school for all new female attendants. They are to be sent there for a time at first, to begin their work by learning to nurse the sick, and to look upon all mentally-affected patients as really sick.

The apartments for private patients at East House are in many respects very elaborate, and resemble more an elegant family

mansion in some of their appointments, than an asylum. The parlors, corridors and dining-rooms are handsomely decorated and furnished, and some of the suites of rooms for those who pay for such accommodations are quite luxurious.

Restraint is not employed at Morningside, nor is seclusion as often used as in some British asylums, though "padded" and "strong" rooms are provided. The shower bath, I was informed, was occasionally used in certain cases of excitement and as a remedial measure.

After Morningside, Woodilee Asylum at Lenzie was visited, and here I passed three delightful days.

When it did not rain there was a strong suspicion that the weather outside was a "wee bit saft"; but inside, Dr. Rutherford and his delightful family, together with his novelties in asylum management, combined to make the time pass all too quickly.

To write anything new in description of this now famous institution would be almost impossible, yet its management has attracted so much attention and given rise to so much discussion as to the merits or demerits of the so-called "open-door" system, that the risk of repetition can safely be incurred.

This is entirely a pauper establishment, and situated within a few miles of Glasgow, receives its patients from a portion of that active Scotch metropolis.

The asylum building, which is the most expensively constructed of the public asylums of Scotland, cost in the neighborhood of £150,000, and affords accommodation for 500 patients. It is situated about three-fourths of a mile from the village of Lenzie, upon a rolling farm of 400 acres, and commands a wide expanse of very interesting Scotch scenery. The asylum is but two stories in height, and the upper floor is used only at night—the day-rooms, sewing-rooms, etc., being all on the first floor. Of the general working of the institution I can, perhaps, give no better idea, than by quoting from Dr. Rutherford's report for 1880:

"The patients and attendants rise at half-past five. All are house cleaners until the breakfast hour, which is half-past seven. At half-past eight all go to chapel, where morning prayers are read. At nine o'clock the various working parties are arranged

and inspected by medical officers, after which they go to work. At one o'clock all return to dinner. The patients and attendants all assemble in the dining hall, which accommodates upwards of 500 persons. The patients are first served, and occupy twenty minutes in taking dinner. The attendants then dine at separate tables in the same hall, the patients remaining seated during the twenty minutes allowed for the attendants' dinner. At two o'clock all leave the hall, and after having been drawn up in line and again inspected by the medical officers, resume their work as in the morning. At six o'clock all return to tea, which is served in the same order as dinner. The indoor amusements are held in the evenings—the principal of which are the weekly dance on Monday evenings, and the Wednesday evening lecture by one of the chaplains.

“On these and other similar occasions about three-fourths of the patients of both sexes are present.”

I arrived at Lenzie on Saturday, the afternoon of which day is considered at the asylum as a holiday. The men were engaged in cleaning and blacking their shoes, and the women in attending to the needs of their own wardrobes preparatory to Sunday, or were out on the grounds under the care of the attendants.

Services on Sunday were held in the asylum chapel, a very tastefully constructed building used solely for this purpose. Access to it is gained from the wards by glass covered passage ways, which serve at the same time for conservatories and pleasant promenades in wet weather. One of these corridors runs from the men's and one from the women's side of the asylum.

The work done by the patients can, perhaps, be best illustrated by condensing the daily returns made by the head attendant of the four divisions for each sex for one of the days I visited the asylum.

The employments enumerated for men are: At cleaning and other household work in the wards only, as garden laborers, as farm servants, as ground or field laborers, as clerks or storekeepers, as messengers, as stokers or engineers, as bakers, as tailors or upholsterers, as shoemakers, painters, joiners, plumbers or blacksmiths, masons, quarrymen, and masons' laborers. For women,

occupation was furnished in the kitchen, the laundry, officers' quarters, at needle and house work, and at knitting.

The four divisions for men had on the day referred to, 45, 48, 68 and 67 patients respectively—a total of 228. The patients employed from these divisions numbered in order, 34, 15, 61 and 63—a total of 173, or about 76 per cent. of the whole number of men patients. Of these, 87 were employed as ground or field laborers, 26 as farm servants, 14 at cleaning and other household work in the wards, 13 as quarrymen, 11 in the garden, 3 as mason's laborers, 3 in assisting the night attendants, 2 as clerks or storekeepers, 2 as stokers, 2 each as tailors, bakers, shoemakers, painters and plumbers, 1 as a mason, and 1 as a messenger.

Of women, there were present on the same day in the four divisions, 44, 59, 72, and 73 patients—a total of 248. Of these there were employed on the corresponding divisions, 40, 37, 64 and 70 patients—a total of 201, a little over 85 per cent. of the women resident. Of these, 13 were occupied in the kitchen, 39 in the laundry, 3 in the officers' quarters, 101 at needle work, 52 at knitting, and 3 assisting the night attendants.

Of course it will be readily understood that of this large amount of occupation but a small proportion relatively is active, remunerative labor. Labor for the insane, however, is not what is desired, while occupation is to be constantly aimed at, and Dr. Rutherford seems to have attained this desideratum to a marked degree.

I saw many patients "employed" or "occupied" who were practically doing nothing; but, on the other hand, in shops and sewing-rooms, and especially in the laundry, among the women good, honest work was being performed by apparently willing hands. One method of employment I considered unique—the utilization of patients as night nurses. Six patients, three of each sex, are thus employed. They accompany the night attendants on their rounds, assist them in taking up patients when necessary, and in the general care of the sick and feble, as well as watching the epileptic and suicidal. I went through the wards at night, both with Dr. Rutherford and his assistant, and assured myself by personal inspection of the fidelity of these "patient-nurses." They, of course, only act under the supervision of the

regular night attendants, of whom there are an equal number, three for each sex. The patients are encouraged to engage in this work by the allowance of a slight sum, five shillings, I believe, a month, and certain extra privileges are accorded them. On this point of the reward of patients for work, Dr. Rutherford, in the report quoted, says :

"Although I do not advocate the indiscriminate payment of patients in an asylum for their work, and deprecate the practice of giving beer, tobacco, snuff and extra food, and such like, as reward, and withholding them as punishment—for the food of a patient, including his tobacco, should be given to him in consideration of his condition and not according to the work he does, and should not require to be increased nor be allowed to be diminished ; yet there are cases whose circumstances render it only just and politic that some remuneration should be given. At present there are several patients of both sexes who receive sums varying from 5s to 20s per month. * * * * The principle is very generally admitted by the giving of beer, tobacco, picnics, and such like, which I think a wrong practice. * * * * The whole question, however, of the remuneration of patients in an asylum is a difficult one, and may be regarded as still unsolved. It is a question which has long received, and is still receiving, my careful consideration."

In addition to the number of patients accommodated in the asylum proper, some twenty men are received in the farm house at Muckroft, a portion of the farm, where they reside under the care of an attendant and his wife. They have a part of the farm and some cattle and sheep to care for. A few patients also reside at the porter's lodge, and when I was at the asylum, farm buildings were in progress of erection, in which from 40 to 60 additional patients were to be accommodated. These small communities have no connection with the asylum proper, except in drawing supplies therefrom, and being subject to its rules and regulations. When I visited the Muckroft colony on Sunday afternoon, I was received with evident pleasure, as a stranger from a far-off land, and the genial attendant in charge and the patients residing with him took evident pride in showing me over their portion of the estate. One large room was used as a sitting

and dining room, another as a kitchen, and the rest of the house, differing in no way from an ordinary dwelling, was used for sleeping apartments.

In the new building in process of construction, the sleeping apartments are almost wholly dormitories, and occupy the second floor of a fine stone building, the first floor of which, together with other adjacent structures, will, when completed, be used as store-rooms, stables, vegetable-houses, etc. Dr. Rutherford has denominated this system of distributing patients about the asylum estate, "the system of location."

The attendants at Woodilee are largely Highland men and women, a race noted for their efficiency and faithfulness. They all wear a simple but distinctive uniform. That of the women is a neat, plain, black dress, white apron, white collar and a simple white nurse's cap. They impressed me as a carefully selected, intelligent and appreciative body, and to them, of necessity, belongs much of the credit for the success which has attended Dr. Rutherford's endeavors.

I now come to a subject which I approach with some hesitancy, in describing this institution, viz.—the question of locked or unlocked doors. I went about the asylum at will during my stay, and only twice, and then at night, was a key used anywhere. Entrance to all the rooms, single and associate dormitories, is gained by turning a simple handle, but these doors once shut cannot, in most instances, be opened from the inside, there being no knob, especially in the single rooms. Outer doors open and shut freely from both sides, but I observed that a patient in one of the sitting or day rooms who attempted to leave, was met at the door by the vigilant attendant, who did not resign his or her charge of the patient, until the responsibility had been turned over to some other attendant, either upon the lawn or in one of the shops or numerous working parties. Of course in individual cases who could be trusted anywhere, as in all asylums, this rule met its exceptions. There appeared to me, however, to be at Lenzie a substitution of personal vigilance for locks and keys. From nine at night till six in the morning all the outer doors are locked as much as in any asylum, and so are all the single rooms. Of the dormitories my notes do not speak, but I saw some of

them under the constant watch of the night attendants. Whether the removal of apparent prevention to egress and ingress has any calming and soothing effect upon the insane, I am unable to state, and it is not the intention or province of the present article to discuss that point. Of one thing I am satisfied: it has its beneficial effect upon the attendants. It makes them realize that their intelligent watchfulness is being substituted for locks and keys, and the history of the experiment thus far at Lenzie, seems to show that as far as it has resulted in training a staff of active, vigilant attendants, it has been a success.

Notwithstanding the great apparent freedom granted the patients at Lenzie, there are arrangements for confining the violent and excited. The "strong" single rooms have double doors and the windows are guarded by inside tight wooden shutters, which slide up from the bottom and effectually prevent escape. These inside shutters are provided in many, if not all, the single rooms, and when in use offer a greater resistance to a determined effort to escape than any exterior window guard I have ever seen in an American asylum. The proportion of single rooms is about one to every five patients. Dr. Rutherford informed me, however, that he could easily do with less. With the exception of a bath-room in each infirmary, there is but one bath-room for each sex. These are large well lighted rooms, which contain a number of large earthen, porcelain-lined tubs placed side by side, a convenient distance apart, and to these bath-rooms all patients who are able are taken at least once a week. As has been before stated the dining hall is common to all patients. Only the sick and paralytic, with such as are occasionally too disturbed to dine with others, take their meals elsewhere.

The hall, which is large and pleasant, immediately adjoins the kitchen, and this allows the food to be placed on the tables while hot. I saw the patients at various meals, and never saw any disorder beyond what might arise from the congregation for a similar purpose of five hundred sane people, except in one instance. Then the offender, a talkative, mischievous girl, was quickly and quietly removed. The dietlist is not as varied as in most American asylums, but the food was well cooked and wholesome, and there was plenty of it. As would be expected in Scot-

land, each patient is allowed a full supply of porridge.

Visits of friends to patients are allowed but once a week, except in cases of emergency, and only on written permission of one of the medical officers.

Something will be expected, after these extended remarks upon Woodilee Asylum, upon the medical treatment there pursued. Upon this point, however, there is but little to be said. Dr. Rutherford is evidently a strong believer in the *vis medicatrix naturæ*. Only a small proportion of his patients take sleeping draughts at night, and stimulants are very sparingly employed, except in a few cases, for a short time after admission. Insanity he regards as a disease of diminished vitality, demanding invigorating treatment, for which nothing is more desirable than active outdoor employment and an abundance of fresh air.

From Lenzie I proceeded to Glasgow, and visited the Glasgow Royal Asylum, Gartnavel. I was most hospitably received by the Superintendent, Dr. Yellowlees, who, at considerable personal inconvenience, showed me everything of interest in the institution. This Asylum, like Morningside, receives both public and private patients. It was at once amusing and suggestive to observe the difference of opinion between two Superintendents, whose pauper patients at least were drawn from the same class, that existed between Drs. Yellowlees and Rutherford. The difference, however, is wholly amicable—indeed, Dr. Yellowlees seemed quite proud of the achievements of his neighbor at Lenzie, though not feeling himself justified in following his example, while Dr. Rutherford could not consent to my leaving Scotland without seeing Dr. Yellowlees.

This asylum affords accommodation for about 500 patients. Of this number, a little less than half are private patients, the excess of public patients over the private being about thirty. The general arrangements for public patients differ in no essential respect from those in America, except that the separate dining-rooms for each ward are replaced by one large dining-hall, as is quite general.

Dr. Yellowlees employs seclusion, but from the records it would appear to be used rarely, and restraint less often, though employed when, in his judgment, considered necessary. Many

of the patients are on parole within the grounds, and a few for limited distances outside. Those to whom this privilege cannot be extended are placed in handsomely arranged airing courts, so situated on a gentle slope as to command a wide expanse of scenery.

Employment is furnished the patients as far as possible, and dances, concerts and other amusements are freely indulged in.

The apartments for private patients are very nicely arranged, but are not as elaborate as at some other institutions, it being the intention of the directors to provide treatment and an asylum for the insane of the middle class, who cannot afford to avail themselves of the advantages of the more expensive private asylums, and at the same time do not wish to be classified among the paupers. For those able to pay increased rates, however, the accommodations provided are in every way satisfactory.

Of this association in one institution, of the upper, middle and lower classes, the Scotch Commissioners of Lunacy speak in terms of commendation, and remark that "it is difficult to see how such a mixture of classes can be productive of anything but benefits," and say that it would be easy to give "striking examples" of this.

The increased income derived from the upper classes, over and above the actual expenditures from these patients, is used to improve the provisions for and care of the lower classes, and the whole character of the hospital is elevated, and the Commissioners of Lunacy are able to report in commendation of this plan, that "such patients" (speaking of the middle and lower classes) "enjoy advantages in the asylum much beyond anything represented by the rate of board paid for them."

I was much gratified to see here in practical operation, and receiving such unqualified approval, a system to which I was accustomed at home, and which had resulted in raising the standard of care for public patients, without in any essential way encroaching upon the rights of those who paid their own expenses.

I cannot close my notes on this institution, which, I regret, owing to the brevity of my visit, are not more full, without referring to one incident as illustrative of the care for apparently

small things exhibited by Dr. Yellowlees, when looking after the interests of his patients.

Standing in his beautiful dining hall, I asked how and where the attendants took their meals, and was informed that they ate before the patients, in a hall of their own. The object of this, Dr. Yellowlees said, was to have them in a better condition to patiently supply the patients' wants, on the theory that they would exhibit less irritability of temper, and hurry the patients less, if their meals came before, rather than after the patients'.

After leaving Gartnavel, my next visit to an asylum was at the one so well known by its published "Medical Reports," the asylum for the West Riding, of Yorkshire, at Wakefield.

At Wakefield I was very pleasantly received by Dr. Major and his assistant, Dr. W. Bevan Lewis. The asylum building is old and in many respects unsuited for its present uses. It has, however, been pretty thoroughly renovated, and by interior decoration and changes made into quite a comfortable institution. Many of the old stone floors still remain, especially on the first floor, but as fast as possible, these are being replaced by wood. The single rooms are small, and the corridors or galleries, as they are often termed in England, are low and poorly lighted. As the patients, however, are congregated during the day, in large and well-lighted day-rooms, when not out-of-doors or employed in the numerous shops and work-rooms, the deficiency of light in the corridors is felt but little. A large proportion of the patients at West Riding Asylum are actively employed. Besides the work on the farm and the general work incident to all asylums, all the boots for patients and attendants, all the patients' clothes and most of the attendants', as well as the sheets for the patients' beds, are made and repaired on the premises. Not only is the cloth for the sheets woven at the asylum, and almost wholly by patients' labor, but at least two other varieties of cloth are made for use in the institution. I visited most of the shops and saw the patients there employed actively at work.

As would be expected by those who have read the admirable series of "Medical Reports" emanating from this institution, much attention is here paid to clinical work and pathological research. Besides the regular medical staff, there are resident at

the asylum two or more clinical assistants or internes, who take much of the duty of recording clinical observations and making notes. Dr. W. Bevan Lewis, the senior assistant, had, at the time of my visit, just published a work under the title, "The Human Brain, Histological and Coarse Methods of Research, A Manual for Students and Asylum Officers," which I am glad to observe is receiving the favorable attention which it merits. Dr. Major took me through the well arranged pathological laboratory and photographing room, and showed me some very interesting preparations. It was in this laboratory, I was informed, that Ferrier's earlier studies for his writing on cerebral localization were made, and from its precincts have gone forth other no less valuable contributions to medical science.

Dr. Major uses very little restraint, but does not hesitate to apply it when, in his judgment, it is for the patient's best interests, and this ground, indeed, I found to be the one taken by nearly all the medical men in asylums with whom I conversed. They were very far from the dogmatic standpoint which some have described them as taking. A few, to be sure, could hardly conceive a case in which it was necessary, but even they admitted that when that case arose they would apply restraint with the same freedom that they would administer medicine. No candid person will deny that restraint is not employed to a greater extent in most American asylums than in those in Great Britain, but an examination of the reports of British institutions or a brief conversation with their superintendents, will soon convince any person of the fallacy of the statement which is so often made on this side of the Atlantic, that it is never used. The forms employed are, usually, the wet or dry pack, closed or endless sleeves (practically a camisole) and mittens. There appears to be a distrust among some, lest from the presence of means of restraint, its frequent use would necessarily follow. As restraint should never be applied except by direction of the physician, such distrust ought to be groundless.

I was told at Morningside that in a recent case a covered bed had been used. Concerning the case for which it was employed, and the subsequent disposition of the bed, I quote as follows from the Commissioners' report :

A large proportion of the entries [of restraint] refer, however, to the case of a male patient suffering from general paralysis, whose legs had become so much swollen and ulcerated, owing to his maintaining the erect position almost constantly both day and night. All the modes of treatment resorted to, failed to overcome this injurious habit, until he was placed in a modified form of what has been called the conservative or box-bed, in which the patient is compelled to submit to the recumbent position. The adoption of this form of restraint was so far justified by the swelling and ulceration of the legs having been cured, and the patient's general health having improved during the time it was employed. It is, however, worthy of consideration, whether the same results might not have been obtained by the adoption of means less suggestive of a return to modes of treatment which have gone out of use; and it is recorded with approval that the exceptional nature of the case was so fully recognised by Dr. Clouston, that the bed was broken up as soon as it ceased to be used for the special purpose for which it had been constructed.

This digression is not particularly applicable to West Riding, but was suggested by the candor and freedom from dogmatism with which Dr. Major discussed this and kindred topics.

The arrangements for bathing at this asylum include a well ordered Turkish bath.

Dr. Major called my attention to gas brackets outside the transom lights over the single room doors. These are kept burning at night, in many instances, and experience, he said, had proven their utility. Many patients getting out of bed in the dark were unable to find their way back, and either stumbled about for a long time or lie down on the floor, but with the dim light burning over the door they could easily return to their beds. A fire brigade of patients and attendants has been organized at the asylum. All the patients belonging to this brigade sleep in one dormitory on the first floor, so as to be ready for immediate service.

I observed among the patients under Dr. Major's care several idiots, many of whom were apparently quite young. The association of this class of patients with the insane must be productive of injurious results to both. Several of the patients take ex-

ercise in airing courts, but the majority have more extended range about the estate. I went to Wakefield with very favorable impressions of the West Riding asylum, and I came away with those impressions in no wise diminished.

Proceeding from Wakefield to London I was at a convenient point to reach several institutions. My time, however, only permitted visits to Bethlem, Hanwell, Colney Hatch and Brookwood.

At Bethlem I fortunately found Dr. Savage at home, and he very kindly escorted me about the hospital explaining its peculiar features.

All poor lunatics presumed to be curable are eligible for admission to Bethlem for maintenance and medical treatment. Patients who have sufficient for their maintenance in a private asylum, those who have been insane more than a year and are considered incurable, idiots and epileptics, those whose condition indicates speedy dissolution of life, and those who require special attendance are excluded. A preference is also given to patients of the educated classes, and to ensure accommodation for these, patients who are proper subjects for a county lunatic asylum, are not received.

The present building has been occupied since 1815, and is not, therefore, constructed upon modern plans. In some respects its exterior reminds me of the State Lunatic Asylum at Utica, and some of the interior arrangements are not unlike those of the latter institution. The wards are pleasant, and by pictures and flowers are made as home-like as possible. In addition to the hospital proper, there is a house at Whitely for convalescents, where about thirty patients are received and enjoy an agreeable change from the monotony of asylum life. Patients are sent out to this branch for varying periods of time, from early spring till the opening of winter, and the change is said to be productive of much good.

The patients at Bethlem have large and well arranged airing courts for exercise, and in their use the disturbed or excited patients are separated from the more quiet and orderly. Padded rooms and seclusion are employed, but restraint is rarely used.

Medical treatment is more systematically carried out at Beth-

lem than at many British asylums, and pathological investigations are regularly pursued.

Dr. Savage lectures at Guy's hospital on psychological medicine, and also gives clinics, to classes of ten each at Bethlem. The students forming these classes are brought directly into contact with the patients, instructed in making certificates, are made to examine patients and to diagnose their form of insanity, and make a written report, and subsequently are examined, upon a special case assigned to them.

The attendants at Bethlem are not uniformed. They impressed me as intelligent and well trained. Two clinical assistants aid the regular medical staff in the care of the patients.

One point which has so much been insisted upon in the pages of this journal, the necessity of early treatment, is strikingly illustrated by the statistics of Bethlem. As has already been stated, patients who have been insane over a year are not received, unless thought curable by the medical officers of the asylum. Of the 269 admissions for 1881, but seven were insane over eleven months. The recoveries for the same period were 141, over fifty per cent. of the admissions, and of these none had been insane over ten months, and but twenty-seven had an insane history of more than three months when admitted.

Dr. Savage allows many of his patients an extended parole, sending them freely into the streets of London without an attendant, even when their mental disturbance is still quite manifest. He informed me that he had met with but little trouble in granting his patients paroles of this character. He cited the case of one woman who made some objectionable acquaintances, and said a few patients had refused to return, but no serious difficulties had arisen.

Hanwell, the scene of Conolly's labors, now affords accommodation for 1,800 patients, 700 men and 1,100 women. As would be expected from the traditions connected with this institution, restraint is seldom, if ever, used. Seclusion is, however, employed, and I saw a number of "strong" and "padded" rooms. A large proportion of the patients are employed in shops and about the premises, and the women, many of them, do sewing and knitting, and are employed in general domestic work. I saw, in

passing through the wards, a large number of aged and infirm patients, as well as many epileptics and paralytics. The superintendence of the men's division devolves upon Dr. Rayner, and that of the women upon Dr. Richards, and to the latter gentleman I am indebted for my knowledge of the institution. The major portion of the asylum is old, and the wards impressed me as dark and gloomy. An attempt, however, has been made to relieve this, by stenciling the walls in bright colors.

The arrangements for night supervision are practically the same as in most of the asylums I visited. In the large dormitories for suicidal and epileptic patients, I observed at one end what, indeed, I had noticed in other asylums—small rooms partitioned off by ordinary matched boards. These board partitions only extend to the height of eight feet from the floor, and the tops are left open. These little apartments are called "cubicals," from the fact, I presume, that their interior dimensions, measuring from the top of the partition, form cubes of eight feet. In these are placed any patients who, during the night, cannot be properly cared for among the other patients in the dormitories, but who at the same time demand continuous supervision. These arrangements seem to have met with general favor, and have, I understand, received the commendation of the Lunacy Commissioners. A new and very handsome chapel has been recently built at this asylum, at a cost of several thousand pounds.

I saw no actively disturbed patients, and those who were apparently the brightest did not impress me favorably. Indeed, the general air of mental deterioration which pervaded the wards of this asylum and Colney Hatch, as well as to a greater or less extent most of the asylums I visited, was painful. I saw very little of the brightness and intelligence which is observable in the convalescent wards of American asylums. In this respect Bethlem more nearly represented what I had been accustomed to seeing at home than any institution exclusively for public patients that I saw in Great Britain.

At Colney Hatch, Dr. Marshall, medical superintendent of the women's division, very kindly conducted me over that extensive asylum. The patients at this asylum, as at Hanwell, come from London, and are all paupers.

The interior arrangements do not differ from that of the other institutions described. There are few single rooms, dormitory sleeping accommodation preponderating. "Padded" and "strong" rooms are employed for purposes of seclusion, but restraint is seldom used. Not as large a proportion of patients are reported as employed in this asylum as in some I visited, but this is in a measure accounted for by the character of the patients, drawn from the idle and dissipated classes of London, and by the large number of paretics under care. At the time of my visit, some of the wards were undergoing renovation, and new buildings were in process of construction, upon which the work of patients was being utilized, especially in moving bricks, etc.

Of my brief visit at Brookwood my notes make little mention. I came away, however, with very pleasant impressions of the institution, and especially was I pleased with the new block which had recently been opened. Dr. Barton, the new superintendent of this asylum, was formerly an assistant under Dr. Brushfield, who had a short time previously retired from that position, and appeared to be maintaining the efficient management of his well known predecessor.

The Lancashire Asylum, at Prestwich, was the last one I had the pleasure of visiting. I had been strongly advised to make a point of visiting this asylum, and seeing some of the very fine decorative effects which had been produced under Dr. Ley's direction.

I arrived at Prestwich at a somewhat unfortunate time, as the medical superintendent, Dr. Ley, and his assistants, were engaged in giving testimony to a Coroner, who was inquiring into the death of a patient, killed a day or two previously by another patient in the asylum. As soon as possible, however, Dr. Ley closed his testimony, and very kindly conducted me about the buildings and grounds.

The circumstances of the homicide above referred to were as follows: A patient, sweeping one of the wards, was bothered by another getting in his way, and pushed him aside. The annoyance continuing, he struck him on the head with the broom handle and knocked him down, causing either by the blow or fall a fracture of the skull, resulting in a few hours in death. The

man committing the assault was not considered dangerous or violent, and on subsequent examination did not appear to have had any motive in striking his fellow patient, beyond driving him out of his way. I was informed that he would be taken before the next assizes, and sent to Broadmoor, the criminal asylum.

Dr. Ley related an incident connected with the unfortunate occurrence, which pointed to the fact that a certain style of sensational irresponsible journalism had an existence in England as well as America. He had offended a young and ambitious newspaper reporter, a few months before, by refusing to give him any data upon which to write a sensational newspaper article concerning the asylum. In order, therefore, to have his revenge, he prefaced his account of the homicide with glaring head lines, "Another murder in the Prestwich Asylum," "The second within a few months," etc., and then drew on his imagination for the details, describing a bloody struggle and a maniac's fury, etc., in the style which is too common in this country. He had conveniently forgotten that the other accident, to which he referred as occurring within a few months, had happened over three years ago! But sensationalism dies when facts are introduced. This incident, so closely resembling some American newspaper methods, was the only one of the kind which came to my attention while abroad, but I learned that it was not by any means the only case of malicious misrepresentation of asylum officers which had occurred, and that the evil was growing.

I soon forgot the unpleasant impressions created by the relation of the above incidents, when I was ushered into the pleasant, one could almost say delightful, wards of the Prestwich Asylum. Everywhere were light, decoration, pictures, birds and flowers. The walls were stenciled in attractive colors and forms, and artistic shelves and cabinets adorned them. The furniture, made for use, was at the same time ornamental, and the pictures, though inexpensive, were such as attracted and pleased the eye. Noticing numerous apparently bronze busts and statuettes on ornamental brackets about the walls, I asked if they were not expensive, and was informed that the asylum bought the originals, some patients made molds from these and made plaster casts, which were afterward painted in imitation of bronze. The brackets,

cabinets and shelves which I so much admired were made by patients, and, as I learned from another superintendent, from designs by Dr. Ley. I saw patients very busily stenciling a wall in pretty and tasteful patterns. Remarking that he was fortunate in possessing such skilled labor, the superintendent replied that none of the patients then at work had ever done any common painting even, before coming to the asylum. They had been there for some years, and had been educated to the work. In several wards large sections of the external wall had been cut out, columns introduced to support the roof, and large glass-roofed bays thrown out for sitting and workrooms, extending, in some instances, nearly the entire length of the ward. The large dining hall was made cheerful and inviting by potted plants and hanging baskets, and not having to fear a temperature of twenty-five degrees below zero, Dr. Ley had introduced windows in roof and wall in great profusion.

The infirmary used for paralytics and the sick and feeble, was one of the most cheerful looking wards in the building. At one end a large fire-place, with ornamental mantel and cabinet surmounting it, afforded warmth and increased ventilation, and, as in the other wards, flowers, birds, pictures, etc., were here supplied with lavish hand. Beside each bed a small table was placed with the patient's dinner, for those not able to be up, while in sunny or pleasant corners, were the less feeble, in rolling or reclining chairs of various styles, with ingeniously fashioned stands or tables to hold their food or work.

Dr. Ley rarely uses restraint, and seclusion is seldom employed. He informed me that with all his profusion of glass, pictures and other articles of ornamentation, he rarely had any breakage, even in his reception ward, where all new admissions go for a time.

Large and cheerful dormitories are used for the suicidal and epileptic, where they are under proper supervision at night, as well as those in the infirmary wards. Adjoining the main asylum building is a block, like the main building, two stories in height, occupied by about a hundred patients, mainly workers, where the "open door" system is practically employed. As would be expected from the interior, the surroundings of the

asylum are made conducive to the patients' comfort. There are tennis-courts, cricket-fields, and bowling greens, while the farms and shops where various trades are carried on, afford the needful occupation to which much attention is here paid. As at the other Lancashire asylums, an annex is being erected at Prestwich. It is to hold 840 beds, and when I was at the asylum was rapidly advancing toward completion. The upper floor was intended solely for sleeping, the lower floor being devoted to day-rooms, sewing-rooms, and a certain number of sleeping apartments. Like the old asylum, it is to be warmed by steam, though fire-places are also to be used, largely for purposes of ventilation. The ceilings are not plastered; the joists supporting the floor are planed, and with the under surface of the floor they support, are varnished. The kitchen for the annex is a model in many respects, and immediately adjoins the large common dining hall. New gas works to supply both buildings had just been finished.

I think all who have visited Dr. Ley's well conducted institution will echo my wish that he would publish illustrated descriptions of some of the interior arrangements of his asylum.

In closing this hurried and imperfect account of a delightful visit to these asylums, I feel it a pleasant privilege to record my hearty appreciation and thanks for the many courtesies which were extended to me by the gentlemen connected with the various institutions which I visited.

I saw many things worthy of emulation; other things which I could not approve, but which, not being able to place myself in exactly the same standpoint the asylum officials occupied, I could not condemn.

I found a very fair appreciation of American institutions and American methods, and a fairer and better judgment of our conduct of asylums than, unfortunately, exists at home in certain quarters.

It may be of interest, in a future article, to glance at the differences in lunacy administration between the two countries. I cannot admit, with a recent writer, that our country surpasses the world in the arts and sciences, or that she leads in social and political advancement; nor do I believe with him that she has been woefully laggard in the treatment of the insane. The thor-

oughness and stability of Great Britain's political economy are reflected in her lunacy administration, but it is within the memory of Lord Shaftesbury, the illustrious head of the English Lunacy Commission, when a far different state of affairs existed; and the reforms of the Tukes, Hill, Charlesworth and Conolly are of comparatively recent date.

DIPHTHERIA AND ITS TREATMENT, BASED ON RECENT INVESTIGATIONS. A Clinical Lecture delivered at the Philadelphia Hospital December 6, 1882. By J. M. KEATING, M.D., one of the Attending Obstetricians to the Philadelphia Hospital, and Lecturer on the Diseases of Women and Children, etc. Reported by WILLIAM H. MORRISON, M.D.

At the last lecture, as you may remember, I spoke of some of the acute varieties of diseases of the throat in children. I propose to-day to make some remarks in reference to the clinical aspect of the subject of diphtheria, based upon the experiments upon observations in the practice of some of us who are interested in this subject at the present time. At my last lecture, I pointed out to you the differential diagnosis of the various forms of acute laryngeal disease in children; these were spasmodic laryngitis, or false croup, one of the most important and most frequent of these diseases; a combination, as it were, of simple acute laryngitis, and laryngismus stridulus, and pseudo-membranous laryngitis, or true croup. I showed you at that time how pseudo-membranous laryngitis differed in its symptoms from spasmodic laryngitis, especially in this fact, that in the former there was present a false membrane, which, by causing mechanical obstruction and interfering with respiration, gives rise to other symptoms not found in the latter disease. At the present time the most important subject which can come before us is the difference, if there be any, between pseudo-membranous laryngitis and the disease known as diphtheria, which is also characterized by a membranous deposit upon the mucous membrane of the throat, fauces and nares, sometimes extending into the larynx and trachea, giving rise to various symptoms, many of which are

due to the presence of membrane obstructing the tracheal opening. I believe that the former affection is always associated with the laryngeal and tracheal forms of the latter, usually presenting its most marked symptom, but that it can occur by itself as the result of cold or irritation as well as its analogue croupous pneumonia. I told you that the mucous membrane of the pharynx differs anatomically from that of the larynx and trachea, and that, therefore, irritation and inflammation of these two parts give rise to entirely different sets of symptoms. The mucous membrane of the pharynx is covered by a thick, almost impenetrable layer of squamous epithelium. This is placed on a loosely-attached submucous tissue which is capable of being greatly distended by infiltration and by blood, so that inflammation of this membrane will cause congestion and œdema to take place below the epithelium, and may give rise, at the same time, to the appearance of but slight congestion of its surface when the disturbance beneath is very great. The mucous membrane of the larynx and trachea is covered by the ciliated form of columnar epithelium. This epithelium is placed upon a very dense basement membrane, and has behind it thick inelastic cartilage. Inflammation at this point will be rapidly followed by the appearance of fibro-plastic lymph upon the surface, lifting the easily detached epithelium, and giving rise to layers of membrane; these deposits may form rapidly, and quickly occlude the larynx or trachea.

About the year 1868, Oertel found in the blood of persons suffering from diphtheria, a form of micrococcus, a peculiar granular matter. A full account of the subject will be found in Ziemssen's *Encyclopedia*, and in the supplement of the report of the National Board of Health for last year, but as this latter is not accessible to many of you, I go into this subject somewhat in detail. Many observers subsequently found that this peculiar matter, which occasionally took the form of little black granules and again appeared in masses, was present in all cases of diphtheria, and in proportion to the severity of the attack. The presence of these micrococci has been positively substantiated, not only in diphtheria, but also in almost all of the so-called zymotic affections. Those of you who attended the lectures in this hospital last spring, will remember the severe epidemic of measles in the

children's ward at that time. The children died very rapidly, and it was impossible at first to account for their rapid death. Dr. Fermad and myself made a number of observations on the blood of these cases, and it was found that as soon as the malignant symptoms presented themselves, the blood of these children was filled with micrococci. There were immense numbers of these; not only did they float in the liquid in masses, looking like frog spawn on a pond, but they also penetrated the white corpuscles, and increased in numbers to such an extent as to cause the globule to burst in many cases, although the red corpuscles were not attacked. The severity of the symptoms was found to be in proportion to the number of micrococci. Whether this was due to the micrococci, or whether the severity of the symptoms and the presence of the micrococci were simply coincident, I am not prepared to positively assert; we do not know, however, that where this material was found in the blood, those children were in danger of death from the malignancy of the disease and from exhaustion, and also from heart clot. It has been found by many observers that these micrococci exist not only in the part where they are introduced, as in the blood of the throat in diphtheria, but they are also carried to the finest capillaries in the body, multiplying with great rapidity. They have been found in the marrow of the bones, and in the minute vessels of the kidney, clogging them, causing mechanical congestion, and finally, either causing or attending a distinct diphtheritic process in the kidney analogous to that going on at the point of invasion. We observed in this epidemic of measles that the children would often exhibit extraordinary symptoms connected with the respiration. A child would be doing well, when suddenly it would seem to have difficulty in breathing. There would probably be, as is usual in such cases, a certain amount of pulmonary congestion and some catarrhal pneumonia, but at the same time the severity of the pulmonary lesions would not be in proportion to the disturbance of respiration which was present. The gasping spells were shown to be due to the fact that insufficient blood passed through the lungs to be oxygenated. There was no trouble about getting air into the lungs, but the trouble was to get venous blood from the right ventricle to travel into the lung.

There was some obstruction. After death it was found to be due to a white clot, which had evidently formed sometime before, and upon microscopical examination this clot would be found to be filled with micrococci.

This is an extremely interesting subject, and those who have studied these conditions under the microscope have found that it was not only an interesting subject in itself, but one of great practical importance. I wish to-day, in view of the present epidemic, to speak to you of some of the practical points which this matter brings before us. It is also of great importance in connection with treatment! From the experiments of Doctors Wood and Formad—experiments which have been verified and which are still going on—it has been proven that the initial lesion in cases of diphtheria is in the throat. It has for many years been a question whether diphtheria was like typhoid fever, scarlet fever and other affections where the blood was first affected by the poison of the disease and a period of incubation resulted, and that this was finally followed by the peculiar characteristics of the disease, that is to say, the appearance of membrane in the throat in diphtheria, the scarlatinous rash in scarlet fever, and of rose colored spots and so on in typhoid fever. These experiments have, I think, conclusively shown that diphtheria is a contagious disease, contagious from the membrane which is present, and that this contagious principle can be inoculated, can be transmitted directly to the individual, and also that it first appears upon that part where the inoculation has been performed independent of any lengthy period of incubation. If the membrane from a case of diphtheria is inoculated upon any part, it is at this point where the first manifestations will occur, which the constitutional disturbance will be of a secondary character. In all cases of diphtheria examination of the blood under the microscope shows the presence of these micrococci, and also that they first appear at the point of greatest intensity, or otherwise invasion, and thence make their way through the circulation to other parts of the body. In the primary stage they are found in the membrane and the epithelium on the surface of the tongue, mouth, and throat, and from these parts they rapidly penetrate into the submucous tissue, and finally are taken up by the blood-

vessels and lymphatics, and develop with great intensity. These experimenters have declared that their observations have shown that diphtheria need not be a so-called specific affection ; that in rabbits, any inflammation of the mucous membrane of the throat may produce symptoms analogous to those of diphtheria with the presence of micrococci ; they at the same time tell us that these micrococci are always found to a greater or less extent upon the mucous membrane of the throat and epithelial debris on the tongue of those in health, but not necessarily in the air which we breathe, unless it be foul. I can scarcely see my way clear to go as far as this, but believe that in a dormant state they may have their peculiar home in the epithelial detritus which is found in the mouth, and are deposited there and vivified by foul air from cesspool gases, and then if any irritation or denudation of the mucous membrane takes place from cold, from sore throat of any kind, especially in children, in whom there is a special vulnerability, these micrococci suddenly develop with great intensity and rapidly produce the malignancy which we see in the secondary manifestations of the diseases ; their habitat being foul air, whence they are derived.

Let me here refer to the great error that is frequently made of calling one disease after another, *e. g.*, calling a sore throat *diphtheritic* because it has a membrane upon it, or a disease *typhoid* because it resembles typhus, or a rash *scarlatinous* because it resembles that of scarlet fever. The result of this is that people who do not know what these terms mean imagine that they have these various diseases, and you will be often told that a person has diphtheria every fall, because some one has called it diphtheritic sore throat, or that a child has had scarlet fever a dozen times, when in reality it has suffered from attacks of erythema, or a person has been *threatened* with a disease of this sort ! This use of terms is objectionable to those who are trying to attain a scientific accuracy in regard to the diagnosis and treatment of these diseases, and raises doubts in the popular mind.

Diphtheria, though possibly a disease which may occur more than once, carries with it a certain individuality of its own. The poison, whether it be micrococci or not, requires something which will increase its activity, and will, under ordinary circumstances,

lie dormant. It may remain for some time in a pure atmosphere, and not develop the disease; but if it is exposed to sewer-gas or bad ventilation, this growth, this cause of diphtheria, is vivified, producing usually the primary affection of the throat, and eventually involving the general system; or the contagion may be direct from one individual to another. Experiments have proved this, in the fact that the most virulent of micrococci, that of erysipelas, if exposed to air which is pure, or, in other words, to oxygen, loses its intensity, and when inoculated shows its enfeebled powers.

Is this disease identical with true croup or pseudo-membranous laryngitis? In certain cases it may be. Oertel, in Ziemssen's *Encyclopedia*, describes two forms of the disease—the catarrhal and the croupous. The first is the result of catarrhal inflammation, which he supposes to be due to the action of a small amount of poison on the throat membrane, giving rise to a mild form of catarrh. This catarrh may come from any irritation. It is no more due to the specific action of diphtheria poison than it is due to the inhalation of fumes of nitric acid or of any other irritating substance. It is simply a superficial catarrh similar to a catarrh in the head. Thus, if you inhale the dust of ipecac, you will set up as severe a catarrh as if you go out into the night air without your hat. Then again, we have that which is described as the croupous form, which may also be dependent upon a specific blood poison, and has attending it a fibrinous exudation, with rapid failure of the system following the introduction of the poison, producing adynamia. We know that ordinary causes, presumably not dependent on diphtheretic poison, may produce laryngitis with the deposit of membrane. Children with this disease present certain appearances and symptoms which are not like those that are seen in the early stages of diphtheria. Those of you who have seen the two affections side by side will, I think, agree with me in saying that they are not identical in appearance. In a case of pseudo-membranous laryngitis, the child may have deposits in the trachea which may so obstruct the tracheal opening as to cause great interference with respiration, yet until the fatal signs come on the symptoms are not identical with those of diphtheria; there is not that profound prostration, that

swelling about the neck and angle of the jaw which shows great involvement of the lymphatics, with enlargement of the glands. In the former disease, the lymphatics are not at all affected in the early stage; and, again, when I tell you that more or less membranous deposit may be readily caused by the least irritation, you can easily see that it is not necessary to always account for its presence by a violent poison acting upon its surface. In the most severe forms of diphtheria the disease, originating in the pharynx, has a tendency to extend into the nasal cavity. In some cases, in adults, the larynx escapes almost entirely, or again, the primary lesion may be in the trachea. Diphtheria is not limited to young children, but is quite common between the ages of ten and fifteen years, and is as fatal at these ages as it is at the same number of months. Pseudo-membranous laryngitis, on the other hand, is quite rare after the age of five years.

It was not my intention to-day to point out these differences. There are some authorities who believe that the two diseases are identical, while others take the opposite view. For my own part, I take a middle course. I think that diphtheria may cause croup, as may any other irritant; they both may be present in the same case, and probably are in children, and one may be the exciting cause of the other. There is in children a tendency for all catarrhal conditions of the mucous membrane of the air passages to exist, and I think we may look upon pseudo-membranous laryngitis as a constant symptom of diphtheria at this age; still, we know that diphtheria can occur in adults without pseudo-membranous laryngitis being present, and that the latter can take place in children with abundant deposits, but unaccompanied by lymphatic involvement and adynamia, unless septicæmia should set in from putridity of the false membrane.

My purpose to-day is to make some remarks in connection with treatment. In treating those cases of measles to which I have alluded, we used large doses of alcohol, in the form of whisky, and we found that it diminished the intensity of the malignant symptoms, and, at the same time, lessened the number of micrococci in the blood. We examined the blood and determined the number of micrococci present; the child was then placed upon full doses of whisky, and examination of the blood

then showed that the number of the micrococci had sensibly diminished, and that they seemed paralyzed in their development. They did not have that tendency to duplication which they had before shown. These investigations were continued by Mr. Oliver Hopkinson, at my suggestion, and he has obtained some extremely interesting results. I might as well state here that we are not able to distinguish under the microscope the different varieties of micrococci, as they present exactly the same appearance; still we may say that the micrococcus of diphtheria may differ from that of erysipelas or of measles, but that though the virulence differs in each case, they are all affected, more or less, in their development by the administration of this same drug. Dr. J. G. Richardson very happily illustrated this point before the Philadelphia County Medical Society. He said that although these growths appeared exactly the same under the microscope, yet they could not be considered on that account as being the same; the spermatozoa of a colored man and those of a white man may look exactly alike under the microscope, yet we know that the spermatozoa of one would not produce the other, and we can illustrate it further by adding that they would succumb alike to the same toxic agents.

From the experiments to which I have alluded, we may conclude that anything that will kill or retard the growth of these micrococci has the effect either of so paralyzing them as to prevent them from producing the malignant symptoms, or else of placing the blood of the individual in such a condition as to prevent the growth of the micrococcus. We find that the fatality of the disease accords with the presence of micrococci, and that if we can destroy the latter, we can diminish the former. As I have already said, alcohol has been found to have a curative effect. The same thing has been observed in regard to corrosive sublimate. The effect of this latter remedy was marked in the experiments of Mr. Hopkinson. He also found that chlorine and chlorine compounds exercised an even more pronounced effect. These experiments are very important. It has been known for many years that the various compounds of chlorine, as chlorate of potassium, tincture of the chloride of iron, chloride of sodium, corrosive chloride of mercury, calomel and soda,

chloride of lime, hydrochloric acid, and many others, had a curative or antidotal effect in these malignant conditions, or in what has been termed septicæmia. I believe that in all cases of this kind we have two different conditions; one is this tendency to malignancy accompanying the increased growth of these micrococci, which may be prevented by the use of alcohol, chlorine, and the like; the other is a septicæmia, associated with the other, resulting from a condition which is entirely different from the former, and where we have under the microscope micrococci and rod-like bacteria, due to decomposition and putridity. These latter produce symptoms of septicæmia, which are associated with those produced by the specific poison. We know that carbolic acid prevents the development of the rod-like bacteria, but it has been stated that this drug has no effect on the micrococcus. We find, by experiments on animals, that if a certain number be poisoned with the poison of erysipelas, diphtheria, they will die; while if others, poisoned in the same way, at the same time receive injections of chlorine water, they will live; and when we find that these experiments are made day after day with the same result, the logical conclusion to which we arrive at present is that, to some extent—how great we can not now say—chlorine and its compounds are antidotal to these diseases.

To review this subject we have noted that micrococci are associated with diphtheria, that inoculation of these matters will produce the disease, that they are found at that point where the diphtheritic process is found in the greatest intensity, and lastly that certain solutions will kill or paralyze these micrococci, and prevent their growth. Let us now study a form of treatment based upon these views. We divide our treatment into the constitutional and the local. For the former we rely on hourly administration of liquid food in small quantities, such as beef-juice, wine-whey, milk, frozen beef-tea, or ice cream, albumen water, or peptonized food by the bowel; also stimulants, fresh vegetable acids, koumiss; and drugs, as quinine, strychnine, etc. We must pay a special attention to the circulation, as *heart death* may occur in two ways: First, syncope from fatty degeneration of the cardiac muscle; and sudden death,

occurring even during convalescence. This requires absolute quiet in bed, digitalis, and strychnine. Second, heart clot, which is most insidious in its formation, and which, I believe, may be due to the rapidly accumulating micrococci, which can possibly be prevented by free stimulation, chlorine, and the chlorides, both internally and by inhalation, and *fresh air*. The local treatment has three objects in view—namely, the destruction of the diphtheritic poison or germ; the prevention of putridity of the false membrane, and the allaying of the inflammation of the mucous membrane itself. It is necessary for the latter indication to keep the air moist; either by the slaking of lime, to which may be added the vapor of chloride of lime; vaporizing the throat by means of an atomizer, to which may be added opium or hyoscyamus in some form, and applying moisture to the throat without, either with a wet cravat covered with oil silk or a light poultice surrounding the neck. For the treatment of diphtheria I would recommend astringent local applications, as, for instance, the perchloride of iron, believing that the disease is originally a local affection. I would not waste time in using carbolic acid alone, for I believe that in such cases, at the onset, it is of questionable use. An excellent local application, which should be used daily by the physician, applied thoroughly to the whole mucous membrane of the fauces. is :

R. — Tinct. iodin..... f℥j.
 Acid. carbol..... gr. x.
 Tinct. ferri perchlor..... f℥j.
 Glycerinæad. f℥j.

The use of the carbolic acid being to prevent decomposition of the membrane. Between times I have used a gargle of salicylic acid and claret. Common salt, I have no doubt, would be of great service, and probably the popular opinion so favorable to chloride of sodium and sulphur will be found to be based upon a very solid foundation. You know that calomel and soda, in small and frequently repeated doses, placed dry upon the tongue, has many upholders, and probably its local action is a very important one, as much so as the constitutional one in rendering the membrane aplastic. Labarraque's solution would

be certainly indicated, and possibly the very valuable Platts' chlorides would serve the same good purpose.

But remember the importance of early local treatment with strong astringent applications, in proportion to the severity of the attack. The presence of false membrane will be followed by *two* evil results: Mechanical obstruction, which will cause death, and its decomposition, which will produce septicæmia. These are both totally independent of the disease itself, and may be classed as complications, though in reality they are taken as symptoms.

Early tracheotomy may, but most frequently does not, prevent the former; quinine, iron, and food, with local antiseptics, may ward off the latter, provided the hidden and unapproachable recesses of the nasal cavities do not render local treatment impossible, and constitutional supporting treatment unavailing. I would then give brandy in gradually increasing doses, giving it in proportion to the age of the patient and his condition, and at the same time administer chlorine in some of its forms, as tincture of the chloride of iron, or chlorine water (f3j or less, three or four times dally, and increasing dose), which has been advocated for a long time by Dr. J. L. Ludlow, of this city, and which has been used by him with great success. I would use the vapor of chlorine in the room.

R_x.—Sodium chloride..... 7½ parts.

Bin-oxide of manganese..... 6 “

Add strong sulphuric acid.....q. s. (Edis.)

Dr. William Pepper recently reported a case of very severe diphtheria cured by the use of large doses of corrosive sublimate. Chlorate of sodium has been used with success by Dr. Ludlow, and is more soluble than the chlorate of potassium, and therefore more quickly enters the system. It can be given in eight or ten-grain doses every three or four hours. Here you see that the experiments in the laboratory have a practical value. They give us something tangible to work on. We find that chlorine does good; we use it and its compounds locally, freely, at first upon the mucous membrane itself, because we know that this is the initial point at which the disease originates. We try to kill or paralyze this micrococcus before it enters the circulation, for

after it passes into the blood it is difficult to influence it. A curious confirmation in regard to this is found in the article by Prof. Oertel. He suggests that when the throat is very much involved, when the swelling in the connective tissue is great, when there is marked stiffness of the muscles of deglutition, and great redness and the appearance of membrane on the throat, a hot poultice should be applied to the outside, for the purpose of encouraging suppuration, believing that by increasing the afflux of blood to the submucous tissue of the throat, and increasing in that way the tendency to suppuration, there is a barrier erected to throw off this poison and prevent its absorption. We cause a layer of pus to develop, and the entrance of these micrococci can be then prevented.

If the poison of diphtheria, the micrococcus of that disease, is found constantly with the epithelial detritus upon the tongue and throat and other mucous membranes, and needs but foul air, absence of oxygen, debilitated constitution, and an abrasion to awaken it from its downcast condition, why can not auto-infection take place in many cases apart from exposure to a contagium of the same kind from without? Could not membranous deposit from simple catarrh, or pseudo-membranous laryngitis with decomposition of the membrane be the exciting cause, and diphtheria be engrafted by an exciting cause from *within* as well as by bad sewerage from a faulty closet, or infected drinking water? I believe that septic or decomposing matters will rapidly vitalize the diphtheritic micrococcus in the throat and fauces, as well as in the uterus and vagina, and I also believe that apart from that, the micrococcus will develop symptoms of malignancy independent of septicæmia alone. In the former iron, quinine, alcohol, and chlorine compounds should be used largely internally, and carbolic acid as an application, with a free supply of oxygen and nourishment; in the latter cases, alcohol, nourishment, fresh air, the chlorine compounds, and vegetable acids are your sheet-anchor—with local astringents.

Although these points which I have brought before you to-day are the results of theory, I should not have presented them if they had not been confirmed by practice. We know that these various compounds of chlorine have been used with good results,

and we simply endeavor to connect the theory and the practice, to show why these remedies have proven of benefit.—*Medical News*.

MORAL INSANITY—WHAT IS IT? By J. WORKMAN, M.D.,
TORONTO. Late Superintendent of the Toronto Asylum for
the Insane, etc.

In the whole range of medical literature there is, perhaps, no nosological term which has been provocative of keener criticism within the ranks of alienistic specialists, and certainly none which has invited more of vapid pedantic invective, in the outside world, whether at the bar, or in the bar room, on the bench, or in blue stocking sewing circles, than the hapless misnamed creature which I have selected for your present merciful consideration. I would trust that as the untimely born thing had no voice in its own baptismal designation, but has owed the infliction to one of our own countrymen, who was dissatisfied with the names previously given to it by a couple of Frenchmen, too recently before, and too soon after the battle of Waterloo, you will approach the subject with becoming moderation, and as far as in you may lie, endeavor to rescue it from the approbrium under which it has innocently suffered.

In the year of 1835 Dr. Pritchard gave to the British public his very valuable treatise on insanity. Nothing can be more unfortunate than the enunciation, in any department of science, of an erroneous doctrine by an author of celebrity. The world has suffered enormous evils, resulting from this source; and I fear not a few of its insane portion have been subjected to very unjust and very unwise judicial penalties, as the direct outcome of Dr. Pritchard's indiscreet nomenclature. Had he been content with the simple depiction of cases of unquestionable mental alienation, so graphically, and I doubt not, so faithfully recorded by him, in which the prominent and high overtopping manifestation of mental alienation, was that of moral abnormality, or utter disregard of the proprieties and conventionalities of social life, his work might well command enduring veneration and gratitude; but he

*A paper read at a meeting of the Toronto Medical Society, December 14, 1882.

had the misfortune to introduce into the science of alienism that ill-fated term—*moral insanity*—as significant of a form of the disease in which the intellect continues quite intact. It is not outside the range of the possibilities, that, had he dubbed his new birth by some different name, and insisted less pertinaciously on its specificity, his theory might have had a longer run of uncontroverted domination. I think, had he consulted me, I would have advised him to call it *Insane Morality*, and I think any discerning reader who will calmly and carefully analyse the seventeen cases given by him as illustrations of the malady would admit the desirability of the change. But what is the use of writing a book that introduces nothing of novelty? Pinel, in 1809, treated of a form of insanity apparently very similar to, if not identical with Pritchard's Moral Insanity. He called it *manie sans délire*. His pupil, Esquirol, following docilely in the footprints of his venerated master, expanded the subject, and in one of the best works yet devoted to the subject of mental disease, he has given several examples of the same affection, but like Pritchard, he tries his hand in the nominating line of business. Pinel's Madness without Delirium and Pritchard's Moral Insanity, become under his sponsorship *manie raisonnée*—reasoning madness—a designation which to ninety-nine and more of every hundred of the uninitiated, who have been taught to believe that the insane always rave and never reason, could not fail to appear utterly absurd. Hence, no doubt, Pinel and Esquirol, and all who have ever expressed concurrence in their theory, have been regarded as themselves insane, and have been much pitied as victims, by contagion to the dreadful malady, to the practical study and amelioration of which they had too earnestly devoted their time and their untiring efforts.

Yet gentlemen, there is much valuable instruction in the works of Pinel, Esquirol and Pritchard to all such as will sedulously distil it out. The insane do not always rave, nor do those who rave, always do so; the insane sometimes reason, occasionally indeed, a little too sharply as I have often known for those who address them as if taking them for mindless bipeds; and I apprehend it is within the knowledge of most of us that

the morality of the insane is not always of unexceptionable purity.

Every man must, from his own consciousness, feel convinced that the human mind; or if I may without offense use the term, the human soul, embraces in its domain something more than mere intellect. We all *feel* as well as *think*, and our judgment is often influenced by our feelings; in too many instances, indeed, the latter obscure or warp or even completely subjugate the former. It is a great error to cut the mind up into distinct and independent principalities, any one of which may pass into a state of rebellion or anarchy, without disturbing the peace or even endangering the normal integrity of others. Those who have had sufficient opportunities of observing the primary manifestations of mental disease, must be able to testify, that in very many instances long before any disorder or impairment of the intellect has been noticed or detected, some unaccountable change has been exhibited in the feelings, the moral sentiments, or the conduct and social demeanor of its destined victims.

The temper which, erewhile, was mild, equable and cheerful, has become irritable, changeable, morose, or perhaps extravagantly joyous. The loving husband has become harsh and tyrannous, the tender parent has become capriciously cruel to the children once the objects of his intense love, the happy home has been transformed into a den of perpetual misery, strife, re-
-crimination, and, but too frequently, acts of dangerous violence. It is needless to amplify the picture. Materials for the filling up may be found in many an unhappy household. Within the last two years a case came to my knowledge strikingly illustrative of the fact which I here desire to accentuate. The subject of it was, till within a few months prior, an intelligent, industrious, good-living man. In consequence of failing in business, he became gloomy, taciturn, and utterly despondent. He continued in this state for some weeks, but under the kind and judicious care of a devoted and sensible wife, improvement gradually took place, and his former mental composure returned. Meeting with a chance of embarking in a line of business suited to his capacity, and very restorative to his exhausted purse, he

became very energetic, and as fertile in speech as he before had been reticent. He resided not far from me, and I watched him with solicitude. I feared that he would bear his prosperity no better than he had done his adversity. My fears were too fully justified. He embarked in a very problematic business enterprise, despite the advice of his wife and all his best friends; his temper became very irritable and at times ominously violent. His wife and the children were forced to leave him. Their religious pastor approved of the precaution, and after hearing full details, I advised her not to venture back until a promising change is apparent.

Now, what was the mental condition of this poor man? So far as his intellect was concerned, no outsider coming to do business, or to converse with him, could detect any flaw or impairment, and I believe it would be impossible for any three medical practitioners undertaking examination of his mental state to find in his conversation, or his deportment towards them, adequate facts to enable them to fill up the first question required to be answered in the statutory certificate of lunacy, which is indispensable to the commitment of a person to asylum custody. Should he commit some capital offense, every judge, jury, or crown prosecutor, that I have yet encountered, would pooh pooh the idea of his insanity; the newspaper reporters would, in due course, have to record of him, *abiit ad plures*. And yet, gentleman, this man's case is exactly one of that class which Pritchard, Ray, and other illustrious writers have ventured to call *moral insanity*; but woe and abiding ridicule betide the medical witness who might, when pushed by an ardent prosecutor to mention the *class* of insanity in which he would place the case, be so indiscreet as to utter this term! He would be sure to hear the prisoner ordered to be *corded* up, and he would feel inclined to try the experiment on himself as his only escape from the tortures awaiting him at the hands of a few who bid fair for yet passing a satisfactory examination for asylum honors.*

It is indeed high time that the obnoxious, death-bearing words should be expunged from the literature of alienism and from the minds of the whole community. It is my belief that the term

* We understand that this person has another attack of the same character.—Kds.

is as unhappy as it is uncalled for. An extended and close *practical* study of insanity in its every phase and degree, from its earliest inception up to its final culmination, would, I think, convince every careful observer that the line of demarcation drawn by some writers between what they have called moral insanity and unsoundness of the intellect, is often very untraceable, and that lapse of time and intimate observance are all that is necessary for its total obliteration. Of seventeen cases of moral insanity recorded by Prichard, hardly one, I think, will stand the test of critical analysis. They were all more or less dashed with streaks of actual impairment of intellect, or the majority of them ran on into undeniable mental overthrow; one, indeed, turned out to be a case of a form of intellectual wreck, which, at the present day, no asylum physician could fail to recognize as appertaining to the most hopeless and the most salient of all the forms of mental dethronement. I refer to general paresis,—a form of brain disease which would appear to have been but little prevalent, or little known, fifty years ago, but which, in the present day, seems to be making deathly strides, even in our sparsely peopled province.

Those who throw their aspersions broadcast over the entire speciality of alienism, or as they are pleased to dub these toilers in the service of humanity—the mad doctors—because of their enunciation of facts and opinions which their detractors have never had either the opportunity, the desire, or the courage to investigate, know assuredly but little of the true merits of the subject on which they so confidently pronounce judgment.

I have devoted a good deal of time, and of careful research, to the enquiry as to the present and past expressed opinions of asylum physicians on the vexed question of moral insanity; and I have found the views which close observance had early constrained me to entertain, so abundantly corroborated by a multitude of able writers and speakers, as to render retrogression from my position a very improbable, if not impracticable, movement.

In a very valuable work on the subject of moral insanity, published in 1870, by Dr. Bonfigli, of Ferrara, a concise review of the declared opinions of forty-six eminent alienistic writers on

this subject is presented. These authorities may be divided as follows :

Seven, terminating with the epoch of Pritchard, uphold the doctrine of absolute, or pure and distinct, moral insanity ; of these three were French, three German and one English.

Seventeen admit the term conditionally ; that is to say, they recognize moral insanity as a conventional or convenient, but not as a distinct or pure form of mental disease. They hold that it is always associated with some degree of intellectual infirmity, or that it is the forerunner of insanity of the intellect. Of these seventeen, seven are French, six German, three Italian and one English.

Twenty-two absolutely, or impliedly, reject the doctrine in *toto*. Of these, nine are German, seven are French, five are Italian and one is American.

Had Dr. Bonfigli been more largely versed in the literature of English and American alienism, he could have much augmented the numbers assigned to the latter two countries ; and, undoubtedly, the classes of conditional advocates and of utter repudiators would have had almost exclusive admission to his catalogue. He, however, introduces into his book a brief report of a discussion on moral insanity, which took place at the Annual Convention of Medical Superintendents of Asylums in New York, in the year 1863. I had the pleasure of being present and of taking part in this discussion, which was conducted in the most courteous and frank manner. Dr. McFarland gave it as his conviction that, "in all the cases of the so-called moral insanity, a real intellectual disorder was present." He was followed by the other members in rotation, including the distinguished and very long experienced Dr. Kirkbride, the President of the Association, and the veritable Nestor of the fraternity,—numbering in all present some forty representatives of the United States and Canadian Asylums. Of all this assemblage only two or three declared their belief in the actuality of moral insanity, and even these declined to define it as a distinct and independent form of the disease. Dr. Gray, Superintendent of the New York State Asylum, at Utica, said that in 5,000 cases of lunacy which had passed under his observance, he had not met with one of pure

and distinct moral insanity. Dr. Chipley said he had not found one in 1,800 watched by him, and I made a similar statement as to 2,000 observed by myself. It is not, however, to be overlooked, that asylum physicians generally become first acquainted with the insane only after their malady has assumed a fully developed character. Very probably, had they more frequent opportunities of observing the disease in its incubative stage, they might feel inclined to recognize in it a *quasi* moral (or immoral) monopoly. Some sixteen years ago I encountered a case of ticketed moral insanity, sent to the Toronto Asylum by three respectable and intelligent physicians. The subject was a girl of barely fifteen years. She was presented by her mother, who gave me a terrorizing history of the daughter's misdeeds, much of which I thought savored more of moral delinquency than of mental infirmity. However, she was sent to me as a lunatic, and I determined to treat her accordingly, regardless of all I had been told of her naughtiness. We began, as we ended, with uniform kindness. At the end of four and one-half months I wrote to her mother that she was either completely cured or she never had been insane. The mother was rejoiced to learn of the happy change, and she came promptly and took her daughter home; but on the second day after, she returned with her, and presented to me a large bag full of various articles of dress, on which Kate had been practicing dissections. I looked over them considerably, and on closing my inspection I said to the mother, "There is too much 'method in this madness' to convince me of its genuineness. We have had the girl here over four months, during which she has never spoken one word indicative of insanity, nor has she done one act pointing in that direction. I cannot re-admit her, for I believe she is not insane." Then I had a scene, which for long afterwards I did not understand, and, of course, could not justly appreciate. The distracted woman exclaimed, "Oh! what will become of her? She will go to the streets!" I then said, "Well, I will do this; I will give you the necessary blank forms of certificates of lunacy, and if you can get three physicians to sign them, I will take your daughter in again." And, as Colonel Prince once said, "it was done accordingly." So, back came my good girl, Kate, and I

gave her the benefit of a thirteen months' further probation, during all which she was just as good, as gentle, obedient and obliging as she had been throughout her former residence. I now talked to her in a very serious and paternal manner, showing her the impropriety and irrationality of her conduct at home, and pressing on her the consideration of her own best interests, which must be ruined by her continuance in a lunatic asylum. She listened to all I said with much deference, but finally told me she would like to leave the asylum, but not to go home to live with her mother. Now, her mother was neither harsh nor capricious, but, on the contrary, she had been both kind and forbearing; and her father and brothers had been equally so. I must say that this ultimate enunciation of my gentle patient let in a little light; for I well knew that the likings and dislikings of the insane are almost always unaccountable, and that both fall upon objects or persons apparently the most foreign to the rational incidence of either. I wrote to the mother, giving a faithful detail of all the facts, and advising the removal of her daughter from the asylum, but not her replacement in the family. She made suitable arrangements for the girl's residence at a distance in the country, and we had the pleasure of seeing her depart in excellent health, and in perfect mental composure. Three years afterward she paid us a visit, and I learned from her companion that she had shown no more symptoms of insanity, either moral or intellectual.

Now, suppose I had regarded and treated this young person, not as the subject of mental disease, but as a clear minded, moral delinquent; in other words, that I had, *quoad* her *exceptional* case, converted her asylum residence into prison correction; what would have been the probable result? It is my belief that I should then have transformed her into a real and a hardened criminal; or if there was, as I now verily believe there was, a constitutional strain of insanity in her frame, I should have been taking the shortest and surest course to precipitate its unmistakable development. Was it not worth while, even, to be deceived and imposed upon for the sake of this girl's rescue from a future of vice and misery? Hear me further before rendering your verdict.

Three or four years after parting with my grateful patient, a sister was brought to the asylum. There could be no question as to the reality of *her* lunacy. She was a sad wreck, both mentally and bodily. Some years before, she had left home and disappeared. No trace of her was had, until at last she was accidentally discovered as a demented inmate of a large pauper asylum in the United States. Her parents brought her home, and were soon obliged to bring her to me. When the mother now presented herself, and gave me the sorrowful history of this daughter's career, the echo of her distressful exclamation, when I had refused to re-admit her younger daughter, came back to my ears with thrilling accusation. But for the happy mental plasticity of the three medical gentlemen who certified to the moral insanity of my first patient, and thus secured her re-admission into the asylum, might not *she also* have fallen into a life of abandonment? Let him who will, answer the question, and then laugh at my ignorance as lustily and long as he pleases.

It is now my belief that my first patient was truly insane, call her insanity by what name soever you may choose; and I am convinced we took the only right course to prevent the more full development of her insanity, and to restore her to a state of intellectual and moral competency. Should I live long, I shall feel a deep interest in learning her future fortunes; for I by no means feel assured that she will come to old age without recurrence of her mental trouble.

Permit me here to introduce a case of flagitious criminality which occurred within the last few years, and came, as it manifestly deserved to do, under appropriate judicial censorship:

"Not long ago," says Dr. Clouston, "a lady, by a series of the most extraordinary misrepresentations and cleverly carried out impostures, raised large sums of money on no security whatever, and spent them as recklessly; imposed on jewelers, so that they trusted her with goods worth hundreds of pounds; furnished grand houses at the expense of trusting upholsterers; introduced herself by sheer impudence to one great nobleman after another, and then introduced her dupes, who, on the faith of these distinguished social connections, at once disgorged more money. To one person she was a great literary character; to another, of

royal descent; to another, she had immense expectations; to another, she was a stern religionist."

This lady was, of course, finally brought to book. I leave to the fourth estate the measure of her punishment. She was an impostor, a huge liar, a cheat; she very well knew right from wrong, and transacted her business with great ability and skill. Not one of all those she duped and cheated—intelligent, prudent, and clear headed Scotchmen as they were—ever questioned her mental soundness. So we may readily conclude she was dealt with according to her demerits.

Let me complete, in the words of Dr. Clouston, Medical Superintendent of the Morningside Asylum, at Edinburgh, the history of this clever woman :

"At last all this lying, cheating, scheming and imposture developed into marked insanity and brain disease, of which she soon died; and it was seen that all these people had been the dupes of a lunatic, whose very boldness, cunning and mendacity had been the direct result of her insanity."

Yes, "it was seen that all these people had been the dupes of a lunatic." *When* was it so seen? Not assuredly whilst jewelers and upholsterers sold their goods to her on credit; not whilst noblemen admitted her into their select circle; nor whilst pious ministers regarded her as "a stern religionist." Had this poor woman's insanity not culminated speedily, but progressed slowly and insidiously, as it does in thousands of cases, she would, beyond all question, have been consigned to a penal prison; and had Dr. Clouston or any other physician ventured to express the opinion that she was insane when she committed the offenses charged against her, the judge would have frowned, the prosecuting counsel would have sneered, the jury would have been astounded, and the press would have applauded their verdict of *guilty*.

O! but we shall be told this woman did not commit murder. Well, let us be thankful for the accident; for who knows not how capricious, uncertain, and utterly outside the range of all the moral probabilities are the acts of the insane? *She* did not commit murder, because she was never tempted or provoked to do so; because she better attained her ends by milder means.

Her ends, however, were insane ends, and she *might*, dominated by a quickly-killing brain disease, have essayed their attainment by violent insane means. Poor thing! the only refuge to her, in escape from the barbarism of law and the blindness of justice, was the *madhouse*! How many a wretched victim of legal and judicial ignorance might, in a few years, or months, have found a similar refuge, had not the gallows anticipated the fiat of Nature?

[Dr. Workman now briefly related a few interesting details of two other cases of the so-called moral insanity, which came under his treatment in later years, both of which he regarded as genuine, though, as he frankly admitted, he had always failed to detect in either, whether in language or demeanor, anything so clearly indicative of intellectual defect, as might suffice to enable medical examiners to sign the certificate of lunacy requisite for their admission into an asylum. The statements, however, made by the friends of these patients, on which he had every reason implicitly to rely, were of such a character as to convince him of the presence of actual insanity in both. It is, fortunately for asylum officers, a fact to them well known, that many of their patients behave while residents in asylums very differently from their conduct and language at home, and all that is necessary to re-develop their mental obliquity is to restore them to their former surroundings; many a family has had awful experience of this fact. In this country there is very little danger of persons in a sane state of mind being either committed to asylums or detained in them. No superintendent of any public asylum can have any interest whatever, in refusing to discharge a patient who has recovered for the credit side of his account in the public estimation, must consist mainly in the number of discharges of restored patients he is able to exhibit in his annual reports, so that whatever danger there may be in this relation, it must be rather on the side of liberating too many, than on that of detaining any wrongfully.]

Dr. Workman then said: "The subject to which I have to-night invited your attention is one that hardly falls within the usually recognized domain of practical medicine or surgery; yet I have but too frequently become cognizant of the fact that members of the profession have, sometimes very reluctantly, though

in a few instances, rather exultingly, have called on to give testimony in cases involving the very important and often very obscure question of mental sanity or insanity; and I would be guilty of suppression of the truth, were I to withhold the expression of my constrained belief that the assurance with which some of these witnesses have renounced their opinions has ever been in the direct ratio of their ignorance of the general subject of insanity. As regards the very recondite question of moral insanity (so called), I have heard very loud denunciations of the term from men who had never read two pages either in affirmation or negation of the doctrine. It has been well said by some writer that nothing is so unanswerable as a sneer. Rely upon it, gentlemen, whenever you may have the misfortune, whether within or outside of the realm of insanity to appear in the witness box, the respect with which you will be heard will be in exact proportion to the extent of the knowledge of your subject possessed by your auditors; and too often this will not be very abundant, either on the bench, at the bar or in the jury boxes.

Before closing my remarks I would desire to allude to a difficulty in which medical witnesses are very liable to be involved, both within the courts of justice and outside of them. In cases of capital offenses, but more especially in those distinguished by great atrocity, as the crimes of the insane often are, the question will often be put to you, Why should such a criminal escape the gallows? Why should not he be held responsible to the law of the land? Now, I hold that with these questions the medical expert has nothing whatever to do. His function begins and ends with the simple establishment of the real mental state of the accused. If the law commands that whether sane or insane, he must be hanged, that should be none of your concern. If the law or its administrators, judging of his responsibility, not by his mental condition, but by the atrocity of the crime, send him to the gallows, the law and its administrators must bear the responsibility. And now Mr. President and gentlemen, in closing perhaps the last address I shall ever have the privilege of uttering in your presence, I would earnestly admonish you against ever in a court of justice using the term *moral insanity*.—*American Journal of Insanity*.

THE INFLUENCE OF CALOMEL ON DIGESTION.

Dr. Vassillieff has found, from experiment, that the presence of calomel, at least up to the amount of five grammes, in the alimentary canal, does not interfere with the gastric juice, nor affect the triple influence of the pancreatic fluid on albumen, fat and starch; on mixing the latter fluid with fibrin and calomel, the formation of certain products, idol, etc., always appearing as a result of prolonged digestion under normal circumstances, is prevented. The gases generated in the process of pancreatic digestion contain none of the usual products of fermentation and decomposition when calomel is present: sulphuretted hydrogen and pure hydrogen are absent, carbonic acid is diminished to from two to ten per cent.; whilst, under natural circumstances, from fourteen to 54 per cent. is found in the gases evolved by the action of the pancreatic fluid. In fact, calomel prevents all other changes in nutritious substances, save those produced entirely by the digestive secretions, decomposition and retrogressive processes in albumens being entirely checked. Calomel also prevents butyric acid fermentation, as Vassilieff found by experiments on cheese. The action of calomel readily explains the cause of the green color of fæces passed by patients to whom that drug has been administered. Hoppe-Seyler rightly attributed this coloration to the presence of unaltered bile. Now, under normal conditions, bilirubin and biliverdin are changed by a process of decomposition into hydrobilirubin, and thus become no longer recognizable in the excretion: but this process is arrested by calomel and the coloring agents, unaltered, give the fæces their peculiar bright green hue.

These researches are described at length by Dr. Vassilieff in the *Zeitschrift für Physiologische Chemie*, vol. vi, page 112. He has found that this action of calomel is due to its power over the micro-organisms intimately associated with the process of decomposition which takes place in food during digestion. The drug prevents the development of micro-organisms in the digestive fluids, and also destroys any bacteria and micrococci already developed. This fact was first proved by artificial digestion. Vassilieff then made a series of experiments to find whether calomel had the same influence in natural digestion. Thirty grains of

calomel were administered to a dog, in two doses, and the animal was killed a few hours later. Under all precautions, the contents of the intestines were then carefully analyzed. Neither idol nor phenol could be found ; and it will not be forgotten by those who study contemporaneous physiological research, that other agents—such as salicylic acid—prevent the formation of idol ; and that pancreatic mixtures, formed from natural pancreatic juice, or infusions of pancreatic glandular tissue, undergo septic changes with very great rapidity in spite of all precautions. None of these changes, nor any formation of idol, occurred in the food taken by dogs to which Vassilieff administered calomel. On the other hand, leucin and tyrosin were found in abundance. Under natural circumstances these products of pancreatic digestion are so rapidly decomposed that they cannot be detected in semi-digested food. Hence calomel has no influence on the action of digestive fluids, but entirely prevents those true retrogressive and putrefactive changes whereby the highly unstable products of these fluids are rapidly decomposed, and micro-organisms quickly developed in great numbers. When calomel enters the alimentary canal, leucin, tyrosin, bilirubin, and other substances, remain unchanged, and bacteria are checked and killed.—*British Medical Journal*.

CANNABIS INDICA; A Valuable Remedy in Menorrhagia. Mr. J. BROWN, of Bacup, observes :

“Indian hemp has been vaunted as an anodyne and hypnotic, having the good qualities of opium without its evils. In dysmenorrhœa and insomnia it has not proved of much benefit. The drug has almost invariably produced some marked physiological effect even in small doses. Text books give the dose as ten minims and upwards, but five minims is the largest dose that should be given at first. If bought from a good house the drug is not inert and unreliable. A drug having such marked physiological action ought to have a specific use as a therapeutic agent. Indian hemp has such specific use in menorrhagia—there is no medicine which has given such good results ; for this reason it ought to take the first place as a remedy in menorrhagia.

then bromide of potassium and other drugs. The *modus operandi* I can not explain unless it be that it diverts a large proportion of blood to the brain, and lessens the muscular force of the heart. A few doses are sufficient; the following is the prescription: $\mathcal{R}$ tincturæ cannabis indicæ $\mathfrak{m}_{xxx}$; pulveris tragac. co. 3j; spiritus chlorof. 3j; aquæ ad 3ij. One, once every three hours. Four years ago I was called to see Mrs. W., aged 40, multipara. She had suffered from menorrhagia for several months. Her medical attendant had tried the ordinary remedies without success. Indian hemp was given as above. Its action was speedy and certain. Only one bottle was taken. She was afterwards treated for anæmia, due to loss of blood. Twelve months after this my patient sent for a bottle of the "green medicine." I learned afterwards that she had sent this medicine to a lady friend, who had been unsuccessfully treated by another medical man for several months for the same complaint. It proved equally successful. The failures are so few that I venture to call it a specific in menorrhagia. The drug deserves a trial. It may occasionally fail; this, however, is not to be wondered at in a complaint due to so many different causes, and associated with anæmia and other cases of plethora."

ON THE TREATMENT OF SPINAL CURVATURE BY RECLINATION IN ITS EARLY STAGES. Mr. Edward Lund, F.R.C.S., Professor of Surgery in the Owen's College, Victoria University, Manchester, writes:

"I hope to exhibit, at the forthcoming meeting of the British Medical Association, at Liverpool, a form of couch for the treatment, by reclination, of spinal curvature in its early stage, and weakness of the muscles of the spine, which embodies in its action a principle of treatment for such cases too frequently overlooked.

"The couch which I have to recommend, and which will be shown at Liverpool, is designed to carry out by reclination the same principle of treatment as operates in the method of vertical suspension, only in a more gradual and prolonged manner. I

have called my couch a 'slippery couch,' and I think the construction and mode of action will justify the term. I have used it with marked benefit during the last few years, in more than thirty cases, in private practice. It is made in this way: A piece of wood is prepared, of suitable thickness, and about six feet long and eighteen inches wide. At about four inches from one end a hole is cut through the wood, of circular form and six inches in diameter, with its margin on one surface of the wood slightly beveled inwards. This end of the piece of wood is to be the upper or higher part, when it is fixed at such an inclination by means of a block or cross-piece as to raise it about one foot at the higher end. It is well to have four wooden legs screwed on, one at each corner, the upper pair being longer than the lower in the same proportion; and to still further influence the angle at which the couch is to be used, by means of extra screw holes in the wood; the longer pair of legs being brought nearer to the foot of the couch, a greater elevation can be secured. The flat piece of wood being so prepared, is covered with several folds of soft thick blanket to about two inches in thickness, the blanket being just the size of the wood on one surface only; over this a piece of well polished black horse-hair cloth is stretched, and being turned tightly over the edges of the board, is nailed underneath, so as to produce a smooth, somewhat soft, but yet slippery, almost polished surface. Where the blanket crosses over the hole already described, it must be cut across in two directions, longitudinally and transversely, and the horse-hair cloth should be left loose over the same spot, so that, if pressure be here applied, an indentation will be quickly made.

"Now, if a couch be prepared in this way, and placed at such an angle of elevation as I have here described, about one part in six of its length, a person lying upon it on his back will soon find, unless he makes some effort to resist, that he will quietly slide down towards the lower end of the couch; and if his attention is otherwise absorbed, he will have his feet over the end of the board, as he is sliding beyond it. By a very simple device, this tendency to slide or slip downwards may be very beneficially utilized for the object we have in view.

"A small, firm, cylindrical pillow is prepared, about the diame-

ter of the wrist, and a foot in length, and this is attached by strong tapes, one at each end of the pillow, and fixed to each upper corner of the couch, the length of the tapes being such as to place the pillow transversely on the board immediately below the lower edge of the hole in the wood. With this pillow in position, and the patient so placed that the pillow may be received into the recess of the nape of the neck, the projection of the occiput falling into the depression made by the hole in the wood, the body is retained in position, and the sliding down is prevented, but yet there is a constant gentle dragging action on the spinal joints from the weight of the pelvis and lower limbs, which will act most favorably in the required direction.

"It is desirable, when a patient uses this couch for the first time, that he should try it without the pillow; and, if needful, the elevation of the couch should be adjusted until the peculiar sliding movement is experienced. Then, with the help of the pillow, and the back of the head falling into the recess prepared for it, the patient will be aware of the principle upon which the couch is intended to act, and be more likely to continue its use.

"All other couches, such as the Ilkley couch, and couches with a double angular bed to support the knees, or with a foot-piece against which the feet can rest, are entirely opposed in principle to the plan of this 'slippery couch.' Using them, the patient may feel rested, and experience some temporary relief; but I know of no way, by reclination, to secure a certain degree of spinal extension, better than to fix the upper segment of the vertebro-cranial axis at one spot, and allow the weight of the lower part to induce direct 'self-extension.'"—*British Medical Journal*.

REPORT ON THE RECENT APPEARANCES OBSERVED POST MORTEM IN A CASE OF DELIRIUM GRAVE. BY S. V. CLEVENGER, M.D., Special Pathologist, Cook County Insane Asylum, Chicago, Ill.

Mary Ryan (case book No. 275) was admitted to this hospital June 28, 1883. Her brother, Patrick McD., visited her soon after, and from him was obtained all that is known of her previous history.

The patient, æt. 22, was a happy, innocent girl, living on her father's farm, near Dublin, when in January, 1882, she was married and left with her husband for New York; thence they came to Chicago, where her husband deserted her on the streets, leaving her with only three dollars, *enceinte*, and without a friend in the city. In April, 1883, Patrick, who was in St. Louis, received a letter from his sister stating the circumstance, and that she was quite destitute, begging for help. He immediately wrote to her, inclosing money. As he obtained no answer to several letters written to her, he came to Chicago to find her in jail, insane, just before her admission here. She had given birth to a girl baby at the county hospital seven weeks before. The distress of the brother was very great, and as bearing upon the possible heredity predisposition it is worth mentioning that he did not appear to me to be capable of enduring a great amount of suffering without risk of mental unhinging. He was a laborer, mannerly and quiet, evidently well brought up and disposed.

The patient raved incessantly. Her attention could be attracted for an instant only. She recognized her brother, but the next moment lost all interest in him. Her restlessness was so extreme as to necessitate restraint to prevent her harming herself. She articulated sentences intelligibly enough, but incoherently. There appeared to be no particular thread to her utterances any more than in terminal dementia. Insomnia was so profound that if she slept at all while here, the attendants remained unaware of it. Dr. J. C. Spray, the medical superintendent, was unremitting in his efforts to quiet and sustain her, but the usual sedatives had no effect whatever, and her condition grew rapidly worse, she developing the ordinary signs of acute delirium. Milk was fed to her freely, stimulation continuously tried, but without avail. July 9, she was too exhausted to leave her bed, and twelve hours before death there was marked collapse. July 13, while administering diluted brandy to her, she suddenly expired.

Twelve hours after death I made a post mortem examination of the contents of the head, and I may be pardoned for digressing enough to say that could some of those who derive all their

knowledge of asylum management from novel reading and the sensational trash published in newspapers for political purposes, have seen with what womanly tenderness the attendants had arrayed the corpse, the vulgar notion that asylum officials and employes are less tender-hearted than the rest of the world might have been foregone. Hypostatic congestion of the entire body was marked. Somewhat large pigmented macules, apparently simple ephelides, on hands and arms, not observable elsewhere. No pemphigus bullæ, such as Jessen (in *Allg. Zeitschrift für Psychiatrie*, 1880) considers a somewhat constant accompaniment, and which Spitzka ("Insanity," p. 250) noted as absent in two out of five cases in his experience. Vessels of conjunctivæ absolutely empty. Veins of dura congested. Pacchionian bodies adhered to skull, which when lifted, tore through these bodies into the superior longitudinal sinus, from which the blackened blood escaped and coagulated quickly. There was a strong adhesion of membranes and cortex to calvarium in left orbito-frontal region, of the size of a dime. The entire length of the dura over superior longitudinal sinus was deeply stained a rusty color an inch wide. General basilar and temporal adhesions of dura to skull, but no other brain adhesion than the one mentioned. Beneath the dura, covering every inch of the brain to the depth of one-twentieth of an inch or more, was a heavy white exudate imparting a pearly luster which almost obscured the fissures in which it lay especially deep. The upper part of the brain and its meninges were greatly congested, the larger vessels standing out like whip cords, but the hyperæmia at the base of the brain was excessive. No departure from the normal observable in the disposition of the convolutions, but the entire organ was puffy, oedematous and yielding; the disintegrative processes were so advanced as to require much effort to preserve the tissues for future microscopic examination, which will be made by Dr. E. C. Spitzka, Dr. H. D. Schmidt (pathologist of Charity Hospital, New Orleans) and myself, and will be reported in articles to be published hereafter, as this journal goes to press too early for their completion.

The consultation which Dr. Spray, Dr. Thuemmler (the assistant physician), and the writer held over the progress and

autopsy in this case resulted in justification of the treatment adopted and in the firm belief that the poor woman was doomed before reaching the asylum; tremendous doses of hypnotics would have been required to produce any effect, and it is questionable whether their exhibition would have been justifiable. Certainly the bromides would have but added to the trouble; ergot and chloral had no more effect than were they not given at all; stimulation was indicated with nourishment to overcome the exhaustion, as it progressed; but all will admit that stimulation exerted no beneficial influence over the hyperæmia, except in a possible *vis-a-tergo* anti-congestive way or diffusant. It would seem that whatever was done, cause and effect would travel in such a vicious circle that her speedy death was inevitable.

I am convinced that had her malady been even faintly recognized at the outset, before the extensive vaso-motor changes had supervened, and her mental perturbation been quieted at a very early stage of her insanity, by hypnotics, which would at that time have availed, she *might have* bridged over the period of fright and grief with a sound mind. As to whether the mania began with the puerperal state or before I was unable to learn.—*Journal of Neurology and Psychiatry*, August 1883.

The Illinois State Board of Health, which has to grant certificates to practice medicine within the precincts of that State, has just issued an interesting "Report on the Medical Colleges of the Union and of Canada." By the State regulations, these certificates to practice are to be issued only to persons presenting diplomas from medical colleges of "good standing;" and as complaints had been made as to the practice and status of certain colleges, a committee was appointed to determine the requirements and characteristics which constitute "good standing" in a medical college. This committee instituted inquiries into the curriculum and facilities for teaching, the requirements for graduation, fees, etc., of all the colleges in America and Canada, and received official information on all these points, as well as many expressions of opinion as to needed improvements. The standard

by which medical colleges are henceforth to be judged in Illinois is certainly none too high. We may summarize the conditions which must be fulfilled as: 1. A preliminary examination in arts. 2. Instruction in anatomy, physiology, chemistry, materia medica and therapeutics, medicine, pathology, surgery, obstetrics and gynecology, hygiene and medical jurisprudence. 3. Attendance upon two full courses of lectures in different years, each session to extend over five months or nearly twenty weeks at least. 4. Regular attendance upon lectures and "quizzes." 5. The final examinations on all branches to be conducted by other competent examiners than the professors in each branch. 6. Dissection during two courses. 7. Attendance during two terms of clinical and hospital instruction. 8. Professional studies to extend over a period of three years, including the time spent with a "preceptor." As judged by this standard, eighteen medical colleges are rejected, and their graduates will no longer be able to obtain certificates to practice in Illinois, five are accepted "conditionally," and ninety-nine are accepted unconditionally.

The most striking fact elicited by this report appears to be that America is, at any rate, provided with a sufficient number of institutions where students can be taught and graduated in medicine. At present these amount to 110. No fewer than fifty-six others were set going, and, after a more or less successful course, have now become extinct. In Canada nine schools have been established, and are all still at work. Every medical school in the States must possess a license to teach medical sciences from the government of the State in which it is situated, and if power to grant degrees is required, a further license from the same authority has to be obtained. The freedom with which these licenses have been distributed is one of the chief factors in the origin of the multiplicity of schools; and the mere fact of the decay and extinction of such a large proportion of the schools started is quite as striking a proof of the little discrimination with which the power of granting licenses has been used, as are the unsatisfactory provisions for proper teaching and deficient requirements for graduation at some of the colleges. The short life of some of the schools is also evidence in support of the view

that such institutions were started with some purpose other than to supply a real want of facilities for medical education.

A consideration of the points in which the American colleges differ from our English schools does not show that they are in advance of us. In a very large proportion, students are admitted to their medical studies without having to pass any examination in general knowledge, or without giving proof of having received a sound general education. This is rightly considered by the Illinois Board as a serious omission, and care is taken to show that nothing is more important for real success in medical studies and practice than a well trained and well furnished mind. We believe that this omission on the part of so many of the American colleges results simply from the pressure of competition. Many of the better institutions refrain from enforcing an entrance examination on their students lest they should be driven to the inferior schools, and so be set free upon the American public worse trained than at present. It seems that the principle of liberty has been carried too far here, and that the need of a responsible central controlling authority to insist upon such an examination being held in all cases is distinctly proved. The period of study, too, is shorter in America than with us. In Canada this is not the case; the curriculum there extends over four years in all cases, and in one college—the Trinity Medical School, Toronto—over four and a half years. In America the period of study is three years, and when we add that one year of these three years devoted to medical study may be spent with a “preceptor,” no further proof is needed to show that the training at the colleges must be so hurried as to lack thoroughness and a truly practical nature. In accordance with this we find to a large extent attendance upon “clinics”—clinical lectures—stands in place of daily attendance upon hospital wards, while in the regulations for graduation there is a conspicuous absence of any law requiring the holding of such posts as those of dresser and clerk. It is, however, only by such work that our students learn many of the minor but very important details of medical and surgical practice. Similarly, instruction in practical physiology and histology, and a complete course of dissection, are not insisted on in the majority of these schools. Judging from the

facts before us, there is no dearth of lectures, to which the long-suffering students must be subjected the livelong day ; but there seems to be a serious want of thorough practical instruction. We are aware that this is made up to a large extent by studies carried on subsequent to graduation, but these are all voluntary on the part of the student, and undertaken only by the more fortunate minority, and we are looking only at the means provided for the general run of the men entering the profession. The last special feature of these " colleges " is that almost without exception they are graduating as well as teaching institutions, and that the lecturers and the examiners are identical. There is much to be urged in favor of allowing the teachers to have some voice in the granting or withholding of diplomas to their pupils, but while admitting this, we cannot but think that the rule of leaving this responsibility *solely* in the hands of the teachers is bad for all concerned, and capable of serious abuse. We believe that none are more ready to admit these deficiencies in the medical education of America than the most experienced teachers and practitioners. But to remedy it is by no means easy. Any individual effort in this direction which would be attended by increase in the expense and difficulty connected with taking out a medical qualification, would only have the effect of lessening the number of students at that particular college. Any hearty union for this end between the various competing colleges is almost beyond hope, while, even were this secured, there would be no protection against the establishment of new institutions in which graduation would be temptingly cheap and easy. Some controlling power is needed to insist on a certain standard of teaching and examination—some body that can enforce the institution of a preliminary examination, an extension of time of study, and the acquisition of knowledge by personal observation on the part of the student, rather than by feats of memory. This is contrary to the prevailing spirit in the great Republic, but the nomination of this committee by the Illinois State Board of Health is evidence that the question is exciting attention, and that the solution of the difficulty will be sought for in applying pressure to the teaching institutions from without. In considering critically the medical as all other institutions in America, it

is important to bear in mind the short history that country possesses. On all hands it bears the impress of youth, of the failings as well as of the virtues and powers of juvenescence. It is not wise to expect the result of the growth of ages in a Republic of quite recent development. Considering the enormous and rapid growth of this great country, a fact unprecedented in history, the difficulties presented to those who have had to train a sufficient body of medical practitioners have on the whole been overcome with wonderful success. And while now it is easy to point to flaws in the medical education there provided, we may be sure that these will be speedily remedied. And as a set-off to any depreciatory considerations suggested by the report before us, can always be cited the undoubted fact that in no country is the profession held in such general high honor and esteem and treated with so much confidence as in America; and this is the highest reward ever aimed at by honest practitioners, and the best evidence of their real worth.—*Lancet*.

WAUKEGAN, ILL, OCT. 2, 1883.

EDITORS OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER.

In the JOURNAL AND EXAMINER for October, page 369, after giving five causes of increased flow of blood to the brain—"gravitation, obstruction, mental activity, physical activity and vasomotor paralysis," I am made to say: "If the hyperæmia depend upon either of the first two it will be arterial," etc., instead of "If the hyperæmia depend upon either of the first two, it will be venous; if upon either of the second two, it will be arterial." etc., as in the manuscript. Please note the correction in the next number of the JOURNAL.

Respectfully,

J. M. G. CARTER, M.D.

Domestic Correspondence.

MINNEAPOLIS, MINN., October 5, 1888.

A meeting of the faculty of the Minnesota College Hospital was held at the office of the Dean of the college October 4, to pay respect to the memory of Prof. Wm. H. Byford, Jr., who died at his residence on Second Avenue, Thursday morning of this week.

At which it was

Resolved, That as it hath pleased a loving and gracious Father to permit Dr. Byford after a long and protracted period of great suffering to lay gently down the burden of life; that in his early death the college to which he was devotedly attached suffers the great loss of an efficient, wise and honorable instructor, whose efforts in its behalf and in the cause of medical education in general, more constant and always marked by that wisdom and culture which is born of a wide experience and a liberal mind.

Resolved, That all his intercourse with his friends and professional brethren was marked by a high sense of honor and courtesy, and in his early and sudden death we lose a wise counsellor and helpful friend.

Resolved, That we deeply sympathize with his bereaved and sorrowing wife, with his honored father, and afflicted family in this their great sorrow.

Resolved, That a copy of these resolutions be sent to his bereaved wife, his sorrowing father and family, and that copies be sent for publication to the local papers and prominent medical journals.

F. A. DUNSMOOR, Dean.

Abstracts.

ALBUMINURIC RETINITIS OF PREGNANCY.—DR. RYERSON, of Toronto, writes:

"Mrs. E., aged 22, was referred to me by Dr. Temple on June 1, 1881, with the statement that the urine contained a large amount of albumen. The patient stated that her sight had been failing for about a month. She said she could see the sides of an object, but not the center, and complained of flashes of light in the dark. She had frontal headache, sometimes severely. She had no pain in the eyes. There was a great deal of nausea and vomiting. She was in the fourth month of her first pregnancy. With the right eye she saw fingers at five feet, and read 16 Jäger; with the left she saw fingers at three feet, and read 20 Jäger. With the ophthalmoscope I observed in the right eye a well marked stellate arrangement of deposits about the yellow spot, with numerous patches scattered about the retina. The optic disc was somewhat swollen and indistinct in its outline. The appearances in the left eye were very similar, with the addition of numerous small hæmorrhages in the lower half of the fundus.

Dr. Temple informs me that shortly after this she was seized with convulsions, and had a miscarriage. She made a good recovery, and when I saw her again on August 4 the swelling of the optic disc had greatly diminished, the scattered patches were less marked, but stellate patches in the region of the macula were about the same as when first seen. In the right eye two veins apparently contained thrombi. The vision was, with the right eye, $\frac{20}{30}$, 16 Jäger; with the left eye, $\frac{20}{30}$, 16 Jäger. She could

manage to write a letter. From Dr. Temple I learn that she regained good vision, but did not myself see her again. In a few months the unfortunate woman became pregnant again, although warned of the danger; convulsions supervened, and in one of them she died.

Remarks.—It would be of considerable interest to learn in what proportion, and in what class of cases of albuminuria of pregnancy, retinitis occurs. That it does not necessarily occur, I know, having attended some years ago two cases in which there was no complaint of trouble of the vision. One case, a woman of about thirty years, in her fourth pregnancy, made a good recovery. The other had uræmic convulsions, and died. I did not use the ophthalmoscope, but relied upon the patient's statements, the cases having occurred in my pre-ophthalmoscopic days."—*British Medical Journal*.

FOREIGN BODY IN THE URETHRA.—DR. GEORGE HUNTER, M.D.,
Linlithgow, writes:

"An elderly gentleman, the subject of dysuria from prostatic enlargement, thought to aid the efforts of his bladder in its evacuation by insinuating the rounded head of his wife's veil-pin into the orifice of his urethra, and thereby opening up the passage. To his dismay, in its descent downwards it slipped from his fingers, and the point of the pin disappeared from his sight. His attempts at removal only caused it to make its way further back, and soon a discharge of mucus, and urgent but ineffectual attempts to pass urine, alarmed him, and induced him to send for me. On my arrival, I could just make out the head of the pin in the membranous urethra in front of the prostate, and could feel the point anterior to the scrotum. To remove it, I fixed the head by pressing on it from behind forwards, and then impaled the urethra against the point. By steady pressure and traction on the point as soon as it emerged from the under surface of the penis, the whole length of the pin was pulled through, only the head remaining in the urethra. The point was then depressed towards the perinæum, and by compressing the flaccid penis in its longitudinal axis, the round head of the pin was easily passed through the meatus, and the entire pin withdrawn. In its re-

moval not a drop of blood was lost, and the puncture remaining was not more severe than that resulting from the use of the ordinary hypodermic needle. Beyond enjoining rest and quiet for the first twelve hours, nothing further was proscribed, and my patient was next day in his usual health."—*British Medical Journal*.

Under date of September 12th, 1883, the *London Medical Press and Circular* informs its readers that the first of certain proposed "retiring rooms for females" has been opened in Gray's Inn Road. We cannot but feel wonder as to what sort of *females* are about to retire to such places. Is it, for example, the female of the British Lion who is thus favored? Perhaps, O, yes! perhaps it is the *women* of London who are to be thus accommodated! But why do not our English friends call their sisters by their honest English name?

THE RISK OF "MASSAGE." DR. JULIUS ALTHAUS, M. D., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, deprecates the abuse of massage, a practice often now employed where it can be of no service. "It is well known that at various times epilepsy, idiocy, and some forms of insanity, have been treated by massage and gymnastics; but fortunately we now hear very little of such therapeutical aberrations.

It appears to me that diseases of the brain and spinal cord, must, on account of the anatomical situation of these organs, be inaccessible to the influence of massage, which can only be applicable to more superficial parts of the body. Apart from this, however, it is important to consider that many of the most important diseases of these organs are of an inflammatory or irritant character, either primarily or secondarily; and this should make it self-evident that massage should not be used for their treatment, even if the suffering parts could be reached by it. I will here only allude to many forms of cerebral paralysis from hæmorrhage, embolism, and thrombosis, which are followed by sclerosing myelitis of the pyramidal strands; and most forms of primary, lateral, posterior or insular sclerosis of the spinal cord.

That which may be good for developing and strengthening healthy muscles or muscles which have been enfeebled by disuse or certain local morbid conditions, etc., is not for that reason suitable for the treatment of muscular paralysis owing to central disease. In most cases of lateral and insular sclerosis, which are, unfortunately, now much treated with massage and exercises, rest is indicated rather than active exertion; and overstraining of the enfeebled muscles acts prejudicially on the state of the nervous centers. I have recently seen quite a number of instances in which the central disease had been rendered palpably worse by procedures of this kind; and, in a case of cerebral paralysis, which was sometime ago under my care, the patient had, after four such sittings, been seized with collapse, which nearly carried him off."—*British Medical Journal*.

Items.

Mr. Edgar L. Wakeman, the well-known Chicago representative of the Louisville *Courier-Journal*, will begin the publication in this city on Christmas day of the *Current*, a weekly literary journal. The venture of Mr. Wakeman is unique, and promises to be an event in the literary world. His intimate friends who have known of his purposes for some time, and have been made more or less familiar with his preparations for the work, are confident that in the *Current* Chicago is to have a literary publication that will do the city much honor and will make the pretentious Eastern magazines look to their laurels.

The founding of this journal has been in contemplation by its projector for ten years. Active preparatory work for the same has been in progress nearly five years.

That the choice of Chicago as its place of publication is one of correctness is shown by the hearty concurrence in that view as evidenced by the noble list of writers already pledged to its

future, and the munificent material encouragement already bestowed.

The *Current* will editorially discuss, with brevity and dignity, all current topics of human interest. It will treat in special papers at greater length, but always with brevity and directness, all questions worthy of earnest inquiry. These features, it is believed, will be carried out in such a manner as to win universal regard.

Following these, the *Current* will present, in each issue, an extended and valuable resume, of an editorial character, comprising comments upon current matters of real interest in Literature, Science, Art, Music, the Drama, and all the higher professions. In these will appear papers and critiques by the best writers upon these subjects in America and Europe; from the latter, by cable, as frequently as their importance may demand.

Aside from these features, there will appear in every issue of the *Current*, it is confidently believed, a greater variety and a higher grade of general literature, of a clean, noble, fascinating, and elevating character, than is now given in any periodical extant.

As an exact assurance that this is not only promised, but has already been arranged for, and will be carried out to the letter, an editorial staff, of exceptional ability and strength, has been for a considerable time under engagement. Among those already secured are the following:

Rev. Dr. Joseph Parker, Alphonse Daudet, Robert Collyer, Emile Zola, Dr. De Griez Von Ronse, Henrik Ibsen, William Henry Smith, Lucy H. Hooper, Joaquin Miller, Henry Watter-son, William Young, Charles Loring Brace, Paul H. Hayne, John Ruskin: L. Alma Tadema, Hjalmer Hjorth Boyeson, Alvin P. Hovey, John Habberton, Dr. Edouard Lasker, Ignatius Donnelly, Xavier De Montepin, William F. Vilas, Bjornsterne Bjornson, George W. Cable, Edouard Remenyi, Edouard Hans-lick, William Moseley Hall, Carl Fr. Mayer, Tony Revillon, Carlotta Perry, Rev. E. P. Roe, Canon Farrar, Dr. Paul Lindau, James Walter, John Burroughs, M. Georges Clemenceau, William F. Poole, Prof. R. S. Anderson, Lionel Tennyson, Lady Lindsay, Austin Dobson, Laboulaye (unpublished MSS.), etc.

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Original Communications.

ARTICLE I.

THE TREATMENT OF BRIGHT'S DISEASE.—By CHARLES W. PURDY, M.D.

Bearing in mind that the chief function of the kidney is the removal of nitrogenous waste from the system, it is possible to lay down a few general rules for management of the whole class of diseases ranged under the term of albuminuria, especially when they reach a point in their progress which seriously embarrasses the function of the organ. It may be useful first to point out a few of these general measures applicable to the whole class, before proceeding to deal with each lesion in particular and its special indications.

First in importance, then, may be reckoned the diet of the albuminuric patient. It was formerly held, and is still held by some, that the loss of albumen represented a waste of tissue that must be made up by the boldest resort to nitrogenous diet, else

the general condition of the patient would sink, and exhaustion become a grave complication of the case.

Such doctrine is a very dangerous one to teach, and much more so to practice, above all in nephritis. In the first place, it is a fact beyond dispute that the quantity of albumen contained in an ordinary repast of food is equal to the loss by the kidneys in ordinary cases for a week ; hence the loss of albumen by the kidneys unless very extreme, does not cause the alarming waste that many are led to suppose. The rapid anæmia of Bright's disease is not alone due to waste of albumen, but to the overcharging of the blood with tissue waste which renders that fluid unfit for healthy nourishment. The pernicious effect of still further loading the blood with highly nitrogenized foods not only increases the evils it is intended to remedy, but it is pretty sure to lead to the most dangerous of complications, namely, that of uræmia. It must never be lost sight of in the treatment of damaged kidneys, the important part always played in the retrograde metamorphosis of tissue, especially the nitrogenized principles in their relation to the urine. Fothergill remarks that " these nitrogenized matters do not merely go towards tissue formation, and then by a process of oxidation pass from one form of hystolitic product to another. They do not break up in tissue disintegration into creatin creatinin, tyrosin and other early products of tissue decay and then pass on into uric acid and urea. Besides being in themselves powerful narcotic poisons, causing coma and convulsions they also form within the animal organism ferments, which exercise no unimportant action.

The kidneys being the chief means of removing nitrogenized waste, it is clear that the presence of unusual quantities of waste nitrogen in the blood maintains these organs in a highly active functional state, and hyperæmia of functional activity leads with certainty to tissue change. Nor, indeed, is it essential in these cases to introduce large quantities of nitrogenous foods into the system, even with the view of repairing tissue waste. A very small portion is necessary for such purpose, especially if the patient is not taking much active exercise (which he should not do if suffering from albuminuria). We all take vastly more nitrogenous food than is necessary for tissue repair. Note, for instance, the

robustness of the highlander, whose condition of health will compare favorably with any race of men with which we are acquainted, yet his food consists for the most part of hydrocarbons, the nitrogenous forming an insignificant part.

We now know that urea is formed not alone from disintegrating tissue, but also largely from splitting up of albuminoids in the liver, and it is time that we applied to the therapeutics of renal disease the lesson which physiology teaches.

We would suggest as a diet for the albuminuric patient as follows: In the main it should consist of farinaceous articles, fish, vegetables, and fruits. Meats must be indulged in sparingly; very small quantities of lean meat alone being permissible. Soups should be prohibited, even the conventional beef-tea and beef extracts. Eggs should be excluded from the diet in albuminuria. It has been shown by Lehmann and Stockvis that when the white of egg is introduced into the circulation, not only does that escape by the kidneys, but a surplus of other albuminoids accompanies it. Senator says the lesson will apply to meat as well as eggs. "Any excess acts in two ways injuriously—by increasing unnecessarily the amount of urea and other waste products in the blood; and also by pouring into the system an overplus of peptones or other albuminous matters, which may simply have to be excreted and cause irritation in the act." Cheese acts in a similar manner, and should not be used. Vegetables may be used freely, and the only ones to be avoided are the leguminous ones which are too rich in albumen. Fats may be used as freely as the condition of the stomach will permit. Milk is one of the best articles of diet, but should not be too exclusive as it does not furnish the elements of diet in a suitable proportion. The stomach should not be overloaded, it being an occasional observation that even in healthy persons albumen appears in the urine after a large meal. Small meals, more frequently repeated than usual, is a good rule to follow in such cases. Great discrimination is necessary in the matter of drinks in Bright's disease. Alcohol in large quantities, especially in concentrated form, is generally believed to be injurious. If alcohol be permitted at all it must be well diluted, and it is preferable to give it with some alkali or neutral water, as Vichy or Apollinaris water in excess. Al-

cohol stimulates the interstitial changes in the kidneys if used in quantities, hence the allowance should be very small—not enough to disturb to any extent the general circulation. Claret, Sherry and Marsala are the least objectionable. As to malt liquors, they should, as a rule, be excluded, though it is stated that lighter pale ales or Bavarian beer are nearly free from objectionable qualities.

Next in importance to diet in the management of albuminuria, as a general measure, may be reckoned the clothing and care of the skin. The cutaneous system performs a compensatory office to impeded renal action, of no small importance. Urea, we know, is constantly present in the cutaneous secretions, as are also phosphates, chlorides, and sulphates of the alkalies. Funke estimates that $157\frac{1}{2}$ grains of urea pass off in perspiration in 24 hours, which is equal to one-third the amount excreted by the kidneys themselves. The same observer reckons the fluids eliminated by the skin to vary from 2 to 29 ounces per hour, and solids for the same time from 14 to 107 grains. Now, the skin, in cases of albuminuria, unfortunately, for the most part is dry and inactive. The beneficial effects of establishing a free diaphoresis in acute nephritis, are very well known to all who have had much experience in managing that disease. It frequently determines the crisis, and leads to convalescence, with improvement in all the symptoms.

It fulfills the most important indication in the treatment of inflammatory disease, namely, by relieving the kidneys of much of their work. It “puts the parts largely at rest,” and permits the impeded or exhausted forces to regain their tone. Thus, the skin should be subjected to the most systematic care in all forms of albuminuria—no less so, in fact, than in the treatment of phthisis. Chills to the skin should be most carefully guarded against, as they lead to hyperæmia of the kidney resulting from internal congestion, which always follows contraction of the cutaneous vessels. Besides this, when the action of the skin is checked there is greater accumulation of nitrogenous waste in the circulation, which, as we have seen, is another cause of hyperæmia. Warm flannel undergarments must be insisted upon from head to foot, from which no variation must be permitted; even

in bed flannel night dresses must be worn. The care of the feet must be no less rigid; heavy soled shoes and boots should always be worn, lined preferably with some warm, non-conducting substance, as cork or felt. The patient should be taught to follow carefully all changes of climate with appropriate external clothing and wraps, and all garments becoming damp from exposure should immediately be changed for dry and well warmed fabrics, and this is doubly important in case of the feet and extremities. There is no more constant or frequent cause of nephritis than exposure to cold; and when the vital powers are lowered, as they are usually in all forms of albuminuria if of any continuance, the susceptibility of the patient to the pernicious effects of cold are very much increased. The depressed, partly paralyzed vasomotor nerves of the skin leaves the cutaneous system almost at the mercy of sudden changes of temperature; hence are requisite the most rigid precautions to prevent exposure under these circumstances. It may be, and indeed it most frequently is the case, that the kidney is not damaged in its entirety; but parts of the organ continue to exert their function compatible with the continuance of life, perhaps indefinitely so long as the lesions do not extend. It therefore becomes of no less importance to guard against causes which are likely to light up an extension of the disease to the healthy structures, than it is to arrest the morbid process in the parts already invaded; and in no way may such objects be more subserved than in the care of the skin through proper attention to clothing, and the avoidance of exposure to vicissitudes of climate. It is proper that we here allude to the general influences of climate on Bright's disease. The first thing to be noticed, is the fact that in the two extremes of temperature—the arctic and torrid zones—albuminuria is rare. In extremely cold climates the great activity of the respiratory system takes the place of diminished action of the cutaneous system, a compensation which relieves largely the kidneys of the extra work which would otherwise be thrown upon them. Consequently we find the greater tendency to diseases of the air passages and respiratory organs under such circumstances. In the tropics, on the other hand, we find the greatest activity of function in the cutaneous system and bowels, and as a consequence

the tendency to disease is more largely to these organs. The kidneys are but little taxed in the tropics, and Bright's disease there is almost unknown. We must make one exception to this statement in the case of amyloid disease, which sometimes does arise in hot climates. It must be remembered, however, that amyloid disease is an affection whose primary seat is almost never in the kidneys; and moreover, it owes its origin to well known constitutional causes, with which the kidney is not primarily concerned. The temperate zone, then, especially in locations proximate to large bodies of water, where changes of temperature are frequent and extreme, is the natural home of Bright's disease.

Whether through the effects of constant cooling of the skin, through the influence of the cool, moist atmosphere of winter, or the exposure to sudden changes which we find so common under these conditions, we get in the first place a gradual leading up to interstitial change, or in the other the sudden precipitation of nephritis, which seldom occurs either in the tropics or in the land of snow and ice. The climate most suitable in these cases should be equable, warm, and, if possible, dry. Dickinson says the mean temperature for the year should be between 60° and 70° F. for a patient suffering from Bright's disease. He supports the assertion by a tabular statement showing the mortality from Bright's disease in the British army in the various stations over the world, as well as in the larger cities. He shows, for instance, that in some of the cities of England and Scotland the mortality from Bright's disease reaches as high as 1 in 200, while in Rome it does not exceed 1 in nearly 5,000, and in the Riviera it is unknown, so far as its origin there is concerned.

In America the southern interior of the continent presents the greatest advantages—such as Mexico. In Europe, the Mediterranean coast seems to give the best results; Rome, Cairo and the south of France may be mentioned in particular. Those engaged in practice near this chain of great inland lakes, where the climate is especially unfavorable, should send their patients to the southern interior, at least during winter, as it would prolong the lives of patients materially.

Nearly all forms of renal lesions, at some stage in the progress, are benefited by the use of diuretics. The proper selection of

diuretics, however, is a matter of the utmost importance; for some of them, if administered inopportunately, without reference to the case, stage, or remedy itself, are capable of doing very serious mischief.

Diuretics may be classed under two heads, as to their mode of action—first, those that act by increasing the general blood pressure in the vessels; second, those that act locally on the kidney circulation and renal epithelium. Belonging to the first class are such remedies as *Digitalis* and *Convallaria Majalis*, which increase the power of the heart's action, and as a consequence cause greater fullness in the arterial vessels. Fluids, also, by increasing the volume of the circulating fluid in the vessels, increase the blood pressure and quicken the urinary secretion. Thus it is that most mineral waters act. To the second class belong such agents as juniper, buchu, and some of the resins. Their action is stimulating to the renal epithelium, and hence as a rule they are contraindicated in the acute inflammatory conditions; their judicious employment following the subsidence of the acute action is often productive of much benefit. Where a simple diuretic is indicated, devoid of stimulating action on the renal epithelium, waters as pure as obtainable are very serviceable. It would seem that the purer the water—that is to say, the less organic matter it contains—the more efficient is its diuretic powers. I find the administration of several glasses of distilled water daily to act efficiently in such cases. I have been much pleased with the results which follow the use of Waukesha waters, when simple diuretics are indicated as above referred to. With the Silurian water I have had the most experience, and for general purposes of the kind I think it cannot be too highly commended, especially as we have it so near at hand. Carlsbad waters have considerable reputation in Europe. From some experience with the imported natural water as we get it here, as well as with the Sprudel salt, I have not found any special advantages.

It is a well known fact that the addition of alkalies and some neutral salts of the alkalies increase the diuretic powers of water, owing doubtless to their stimulating osmosis; and in the selection of mineral waters this fact is well to bear in mind. The alkaline properties of Vichy water commends it especially for use

in cases of gouty history, which we find so frequently to precede the more chronic form of the disease, and the Buffalo Lethia waters are even more valuable in such cases.

ACUTE PARENCHYMATOUS NEPHRITIS—Whatever differences of opinion may obtain in other renal lesions as to their true pathology, there can be no question as to acute nephritis. The process is distinctly inflammatory, and must be met with energetic anti-phlogistics. The more early this fact is recognized and the more promptly measures are shaped accordingly, the more successful will be the result of its management.

Two prominent indications present themselves in dealing with acute nephritis. First, to secure depuration of the blood through stimulating the action of the skin and alimentary canal; and second, to limit the inflammatory process in progress in the renal tissues. The most efficient means of exciting the action of the skin in these cases is the *dry hot air bath*. The steam or Russian bath, or the baths devised by Simpson, nor yet the hot water bath in these cases must not be ranked in efficiency with that of dry hot air. There should be no mistake on this point. Though it may be a more convenient method to wrap the patient up in hot, moist blankets and leave him to steam for an hour or two, the results will not be so satisfactory in producing elimination of fluids by the skin, and moreover the practice is not so safe as the employment of dry hot air. The advantages of the latter are that evaporation takes place more rapidly in dry than in moist air, hence more rapid perspiration is induced. Again, the bodily temperature is not elevated near so high with dry hot air as by means of steam for the heat of the body is obstructed in its egress and accumulates more rapidly than in dry air. I have induced the most copious perspiration for an hour or more by means of the hot air bath, without elevating the bodily temperature more than one and a half to two degrees, and it seldom raises the temperature more than the latter. It is well known that the Russian bath, so-called, usually increases the bodily temperature three to five degrees, the pulse is accelerated to 150 or even higher, with a corresponding effect on the respiration. Should the case be complicated with heart trouble, such disturbance of the system is highly injudicious, and if the patient is threatened

with uremia the great increase of temperature is more apt to precipitate convulsions. In all cases, then, the dry hot air bath is preferable; it promotes a more thorough action of the skin, without seriously disturbing the pulse, respiration, or bodily temperature, and moreover, it is far more comfortable to the feelings of the patient. The application of the hot air bath is not necessarily attended by more inconvenience than the hot pack, much less the hot water bath. The simplest contrivances often meet the necessities of the case quite as well as all the paraphernalia of the modern Turkish baths. The patient may be placed between woolen blankets, carefully tucked in about the edges of the bed and the neck, leaving the head out of course.

Plenty of heavy quilts are next thrown over the patient to retain the heat. A small alcohol pocket lamp is next filled and placed on a tray near the bed, fitting over which a small sized stove pipe rising about three feet from the floor conducts the heat beneath the blankets beside the patient. To secure a more equable distribution of heat about the patient an oval crib formed by joining a few half barrel hoops with half a dozen laths, may be placed over the patient which also serves to keep the blankets from weighing heavily on his body, and secures quite a roomy air chamber beneath the bedclothes. By such means a patient may be subjected to free diaphoresis for an hour or two with the least attendant exhaustion possible. The patient need not be removed from his bed—an important consideration if there is much prostration. I do not claim any originality for the above method of employing the hot air bath; but I do claim advantages for its use over any and all methods of producing diaphoresis with which I possess any knowledge. In cases of acute nephritis it should be employed daily for an hour or longer, according to the urgency of the symptoms and the strength of the patient. It will be found after the patient is made to perspire for half an hour or so, that the artificial heat may be stopped, and perspiration will continue freely for a long time, more especially if some warm drink is administered. He may then be quickly dried with warm towels and comfortably arranged in bed. Jaborandi, or its active principle, pilocarpine, may be tried and will sometimes act very freely as a diaphoretic. Its uncertainty, however, and occasionally its de-

pressing effects render the hot air most to be relied on. Free catharsis should next claim attention, and the selection of the purgative will be determined by the strength and age of the patient as well as the urgency of the symptoms. While not advocating a continuous course of purgatives for the relief of nephritis, we favor beginning treatment with a brisk purge, which besides in itself beneficial, it very much increases the action of other remedies, for by unloading congested blood vessels, it is well known that it relieves stasis of blood and promotes osmosis and absorption: As a rule we should begin with free catharsis, then regulating the bowels subsequently with milder aperients as the most conservative course.

In addressing our treatment to the kidneys themselves, all authors are agreed that dry cupping is highly beneficial. The cups should be quickly moved when the skin becomes reddened, and the process may be repeated several times during the day. Following the cupping large warm poultices should be applied to the lumbar region continuously, and their efficiency may be much increased by adding sufficient mustard to keep the skin irritated. In a later stage more permanent and decided counter irritation is beneficial, as by the use of croton oil liniment, but blisters of fly, or turpentine are on no account to be employed for obvious reasons.

The question of the use of diuretics in acute nephritis is one which has been warmly disputed, and calls for most careful consideration. Dickinson does not sanction their use unless it be in the form of spring water. Even with regard to digitalis he says: "I have learned to doubt whether this sure diuretic is so certain not to add to the congestion of a recently inflamed kidney, as I formerly supposed. It adds to the force of the heart and I think I have sometimes traced the discharge of blood with the urine to its use."

Grainger Stewart, on the contrary, says: "I have been accustomed since student days to see diuretics freely employed and frequently with great advantage." Roberts claims for the exhibition of acetate of potass a uniform increase in the quantity of urine, a subsidence of inflammatory action, and a subsequent exemption from uræmic attacks.

In examining this question critically, it may be useful to remember the method whereby nature determines the crisis in cases which take on a favorable course. If, for instance, a case of nephritis is left to itself and no medication employed, either complete blocking up of the renal tubules will occur, and death follow from dropsy, or uræmia, or spontaneous convalescence will follow upon most copious diuresis. Nature's most potent avenue of relief then is clearly through diuresis. If we can bring about this result without increasing the existing damage to the kidneys themselves, the agents which will accomplish this are clearly those upon which we should rely. Bearing in mind the pathology of the lesion we seek to remedy, the secreting tubules are blocked up with various products of diseased or disorganized epithelium which line these tubes. Stagnation in the packed tubules prevents filtration of urine, and there can be no improvement till the obstruction be removed. Obviously, if we use such diuretics as juniper or squill, which stimulate the renal epithelium, we run the risk, not only of adding to the renal congestion, but also of hastening the disorganization of renal epithelium, which would increase rather than diminish the blocking up of the tubules. Fortunately, we have a class of diuretics which quicken the filtration of urine in the malpighian coils, through their power of augmenting the general blood pressure without any stimulation of the tubular epithelium. Agents which directly increase the power of the heart, of which digitalis is the representative, are the ones indicated. Fluids also, such as water and salines, lead to the same result as heretofore pointed out. The aqueous elements of the urine are in the main filtered through the malpighian coil, an arrangement peculiarly fitted for that purpose; increase of blood pressure then results in a more copious filtration of urine within the glomerule. The urine is forced downward washing before it the obstructing débris, or products of inflammatory action, without exerting a deleterious action on the tubules themselves or their lining epithelium. We believe, then, that a judicious selection of the diuretics referred to are among the most efficient agents at our command. Such are the measures in the main most useful in the management of acute parenchymatous nephritis; and it is not too much to assert that by far

the larger majority of cases managed in accordance with the principles dwelt upon will terminate favorably.

It is scarcely necessary to add to what has been said already on the question of diet, except perhaps to say that the most rigid adherence to the rules laid down before, should especially be carried out in acute nephritis. Milk diet, more or less varied, should be adhered to, to the exclusion of meats. The patient should be confined to the bed from the start, and kept there until the acute symptoms have quite passed away.

Complications of several kinds are apt to accompany acute nephritis. The most alarming of these is uræmia, which in this lesion is most apt to assume the tonic convulsive form. The physician should ever be on the watch for this in treating nephritis, for its appearance is usually preceded by well defined premonitory symptoms, which should be taken advantage of in time. If the urine diminishes in quantity to four or six ounces in twenty-four hours, we know that much waste material is accumulating in the blood. The urine may even be fairly voluminous, but containing daily a minimum of urea, and this we know is apt to lead to a dangerous accumulation in the circulation. Possibly vomiting may occur and become obstinate, and more or less headache, and dullness or drowsiness supervene. Symptoms like these must be met by prompt measures, as they portend the near approach of convulsions. The hot air bath should be resorted to, and its use prolonged till the most copious diaphoresis is secured ; following which a sharp purge should be administered. Among the agents advised for the uræmic attack itself are bromide of potash, chloral hydrate, chloroform, and hypodermics of morphia. The latter we should hesitate to employ, though Prof. Loomis, of New York, and even Ringer, indorse it. We should administer full doses of chloral hydrate, either by the rectum or hypodermically, and if the convulsions were still persistent, should resort to venesection, at least as a temporary measure. It has been well known for many years that bleeding gave the best results in cases of puerperal convulsions ; even before the cause was understood. We now know them to be uræmic, and if bleeding will arrest the uræmic convulsions of pregnancy, there appears no

reason why it should not likewise be equally serviceable in similar eclampsia of nephritis.

Acute chest affections, when unfortunately they complicate nephritis, constitute a class of troubles the most difficult to manage. Their intractability is due to the fact that they are induced by a poisoned condition of blood, incapable of furnishing the elements conservative of tissue destruction ; as well as being incapable of removing the products of inflammatory change. To the usual antiphlogistic measures employed in these inflammations, must be supplemented the energetic use of all the measures tending to eliminate, through the various compensating channels, the retained tissue waste circulating in the blood ; and these have been fully dwelt upon heretofore.

Dropsy frequently constitutes one of the most obstinate symptoms of acute nephritis ; and occasionally becomes so extreme as to call for special measures for its relief. Its appearance signifies that the aqueous elements taken into the system are obstructed in their elimination. In other words, it points, as a rule, to grave obstruction in the secreting structure of the organs. Sooner or later, if the organs do not resume their function, the dropsy calls for relief, else crowding of the organs within the chest may lead to death through gradual asphyxia, or impeding of the heart's action ; or local erysipelas or gangrene may be set up through compression of tracts of the surface, usually of the limbs. Puncture of the skin in places will relieve the tension of the parts, but such measures often lead to very troublesome ulcerations and sloughs, and, as a rule, are to be avoided.

There is less objection to draining away the surplus fluids from the abdominal cavity, or even the chest, by means of the trochar or aspirator ; and this may be done as a temporary measure, often affording great relief to the patient. It must not be lost sight of in this, as in all complications of nephritis, that the only permanent relief must come through a re-establishment of the renal function ; and while special means are being taken for the relief of the various complications as they arise, the general measures laid down for the improving of the kidneys themselves must at all times be resorted to with a firm hand. If this be neglected, any seeming success in relieving a threatening com-

plication is only followed by the greater misfortune of discovering later a general condition which will baffle all our efforts to relieve. If dropsy become urgent, and the general condition of the patient is not much reduced, we may often obtain good results from evacuent treatment. In such cases American hemp may be used often with the happiest results. It should be given in repeated doses, till nausea is induced, and then its use suspended for a few days. The diuresis produced by its action is sometimes enormous. From a few ounces of dark red, smoky urine, passed in twenty-four hours I have known it to be immediately increased to several pints in a few hours, and the dropsy to disappear in two or three days. Sometimes it acts upon the bowels as well, producing copious watery stools. If, fortunately, free diuresis is once established, its continuance may usually be kept up by the other measures advised; and if so, the patient enters upon convalescence. Chronic nephritis should claim some attention before speaking of the other renal lesions. Rarely beginning as such, chronic nephritis is usually the result of a more or less prolonged acute attack. The inflammatory action having largely subsided, the tubular epithelium remains more or less damaged, with a tendency to fatty degeneration. Pretty much the same general principles should be observed in treating the chronic form of nephritis as the acute, except that greater caution is necessary in the employment of evacuants, as the general condition of the patient is usually reduced. Purgatives, for instance, should not be pushed, as they are likely to increase the anæmia so frequently present.

Bartels lays great stress on diaphoretic treatment. He says: "The methodical employment of diaphoresis constitutes, in my opinion, the most reliable means of reducing the troublesome and dangerous dropsy; it is also the only treatment from which I believe myself justified in expecting a curative action similar to that which it exerts on the acute parenchymatous inflammation of the organs."

We must bear in mind that in the chronic form we are dealing with a deep-seated malady, whose changes are less active than the acute form, and any measures employed must be continued systematically over much longer intervals of time in order to se-

cure any permanent results. Diaphoresis, if conducted with these facts in view, through the agency of hot air baths, in keeping with the strength of the patient, will seldom disappoint our expectations unless the disease has progressed so far that resolution is impossible. I have used them daily for weeks without obtaining the exhausting effects attributed to them, and never without the most marked improvement in most of the symptoms of disease. Thick woolen textures should be worn next the skin, which not only insure warmth of the skin and invite the blood to the surface, but also absorb the perspiration and prevent the sudden check of the latter by changes of temperature. We are not as closely restricted in the use of diuretics in this as in the acute form of the disease. The free washing out of the tubules is most important as it promotes a more healthy action of the renal epithelium, and tends to restore the damaged condition of the gland. Some of the spring waters already mentioned may be taken, say three to six glasses daily. The citrate or the acetate of potash are very favorable diuretics, as they are in the acute form. Whichever of these salts are employed they should be given in full doses. As a rule, the more recent the case, the more may be expected from the use of these salts, though they often act happily also on cases of long standing. If the urine persists in scantiness, containing considerable debris, it is often beneficial to employ some of the diuretics which are more directly stimulating to the kidneys themselves, as the contra-indications to their use are not so strong here as in the acute form. They are preferably combined with some of the potash salts. Juniper and squill are of doubtful utility unless it should be in cases of great chronicity. I use frequently in these cases a combination consisting of compound fluid extract of buchu and pareira brava with acetate of potash. Most cases of chronic nephritis, sooner or later, require the use of iron on account of advancing anæmia. It is best to combine with the iron, or give at the same time, some alkali salt. I believe it was Trousseau who first pointed out the advantages of this in all cases of anæmia. The beneficial effects of a warm dry climate must not be lost sight of. If the patient can afford to avail himself of such valuable aid to

treatment, it should be strongly advised above all during winter months.

Granular Degeneration.—It must be conceded, I think, that when the kidneys become the seat of interstitial fibroid growth to any serious extent, it constitutes a condition from which recovery of the damaged organs is well nigh hopeless. The fibrous tissue growth not only impossible to reach and remove by remedies, likewise causes destruction of the tubules so complete that restoration is not within the reach of therapeutics as at present known.

It would seem from this at first sight, that the outlook of a case established as renal fibrosis must be a hopeless one. Fortunately, this is not absolutely so, as far as prolonging life, and even arrest of the disease is concerned. Granular degeneration of the kidneys, as we have previously observed, is the most tardy and chronic in its course of all kidney diseases, extending sometimes over fifteen or twenty years, under favorable circumstances, ere the entire organ becomes sufficiently implicated to put a stop to its function or impede the same incompatibly with the continuance of life. Dickinson remarks, "The organ is invaded by slow, and often hesitating approaches, and we cannot but admit the importance of any measures which, by removing the tendency to the disease, may save as much of the gland as is yet intact."

When we reflect that the great majority of these patients are beyond middle age, in fact well advanced in life, and the symptoms are not necessarily incompatible with a fair degree of enjoyment of life, the outlook seems less gloomy. Probably the greatest influence capable of being brought to bear in limiting or even arresting the disease, may be looked for in climate. An even temperature, with a mean between 60° and 70° F., with a dry atmosphere, are the desired objects to be attained. Dickinson has paid much attention to the influence of climate over granular kidneys. He says, "I have sent persons with whom the disorder, though giving rise to no symptoms which could unfit them for traveling, yet has been advanced and threatening, to winter in the Riveira, the warmer parts of Italy, or Egypt, with the issue of early general amendment, and such certain

though slow mitigation in the special symptoms as to show that the advantage to be expected from change of sky is at least as great in renal as in pulmonary disease. Cure is a word to be used with caution, but I have seen little less: the albumen reduced to a trace, and perhaps that inconstant, and the general health brought up almost to its original level."

If the disease is fortunately discovered in its early stage, then the patient should be sent to some such climate as before indicated. Rome is spoken very highly of, as is Cairo. The disease is almost unknown in the former place. I am not aware what results have been recorded from sending patients to the more favored climates of our own Continent. I believe the Mexican climate to offer the most desirable conditions for residence. Take, for instance, Durango, where the extremes of temperature are 60° and 80° ; the atmosphere is dry, and the elevation is about six thousand feet above the sea, sufficient to keep the respiratory functions in a state of activity. Aside from the months of July, August and September, which constitute the rainy season, it affords superior advantages for this class of patients. In a disease so impregnable to the effects of medication we must rely more on the influences of climate, which in this case fortunately often proves potent in retarding, if not arresting, the disease.

As to the use of medicine in granular degeneration of the kidneys, they will be found more potent in protecting the patient from the effects of complications than upon the disease *per se*. We must have regard to the fact that this lesion is for the most part led up to through an increased activity of the gland which has been long overtaxed, resulting at length through continued functional hyperæmia in proliferation of inter-tubular fibration. The gland may suffer in isolated sections, some of which may come to a stand-still, or other new points may develop and continue independently and thus, step by step, the whole gland gradually succumbs, not by a general process simultaneously through its whole corticle at once as in nephritis. The lessons to be learned from this are, that if we can modify the conditions which give rise to the morbid process, we have greater chances of checking its progress than would at first be expected. Advantage

may be taken of the temporary lull in the progress of the disease so common, to place the patient under conditions less likely to favor its subsequent progress.

Remembering how Bright's disease is largely resultant from indulgence in too highly nitrogenized food as a habit, the diet must be regulated to contain barely sufficient of such to maintain tissue repair. We have already laid down the rules which should govern such cases, and it is only necessary to add here that they must be still more rigidly adhered to in this lesion if the patient's life is to be preserved. The careful regulation of the diet, and also of the condition of the skin, constitute the two chief points on which depend aggravation of the existing lesion, and no less so the determination of serious complications. By keeping the skin warm and dry, and lessening the nitrogenous waste in the blood, we avoid with most certainty the acute conditions which sometimes arise; and be it remembered, that in these acute conditions is where the chief danger to life lies. All that we have said under the head of nephritis with reference to clothing, is quite as applicable here, and need not be again gone over.

By referring to a table of urine in my former paper on the pathology of Bright's disease, published in this journal for April of this year, it will be observed that the average quantity of urea excreted by the kidneys daily in renal fibrosis, is 160 to 280 grains; consequently, from 232 to 352 grains of urea more than the normal is retained daily in the circulation, either as urea or the products from which urea is formed. Now, herein lies one of the great dangers to be apprehended in granular degeneration. As a result of the above, uræmia often explodes suddenly; or, almost equally serious, the lighting up of some acute inflammation within the chest, which is even more intractible than uræmia itself. It will not do to await the onset of such complications as these. All rational treatment of renal fibrosis must have constantly in view the threatening of such dangers, and measures must be constantly employed from the first which are calculated to avert the mischief. We have referred to the necessity of diminishing the nitrogenous, and increasing the carbo-hydrate foods. Further measures will be the constant maintenance of the bowels in a regular condition. Occasional hot air baths are of

immense importance in securing free elimination through the skin, of waste products. The kidneys are, perhaps, on the whole, best kept active by means of alkali salts; but heart tonics, as digitalis, I believe are unsafe, and should be limited at least to special cases, where, for instance, there is no evidence of over-tension in the vascular system. The reason for this caution lies in the fact that a large proportion of the cases of renal fibrosis terminate in cerebral apoplexy. It is believed, with degeneration of the arterial vessels and hypertrophy of the left heart, so constant an accompaniment of this lesion, that the employment of heart stimulants constitute no ordinary danger, which should be restricted, not only as to drugs, but also in the avoidance of all muscular exertion which calls suddenly or heavily upon the heart's action.

Various drugs have been recommended as exercising a direct curative action on the kidney itself. Perhaps the most popular of these are iodide of potassium and the chloride of gold; but the records as yet are not sufficiently encouraging to inspire great confidence in their use. Iodide of potassium theoretically promises the best results, and some authors recommend it strongly. Bartels gives the drug to the extent of 20 to 30 grs. daily, continued for an indefinite period. He says in one of the cases treated for four months thus, "the albumen had as good as disappeared from the urine; the amount of urine fell from 2,000 c.c. on his entrance to the hospital, to 1,400 c.c. on an average." Too much reliance should not be placed upon such measures in the light of past experience. Bartels himself adds: "The patients whom I treated upon this principle, before threatening symptoms appeared, withdrew themselves from my observation too early, so that I cannot yet venture to form an estimate of the ultimate results of this method of treatment." As to chloride of gold, I am unable to say that it has any influence in checking the disease; but its use should be extended over greater length of time than I have had opportunities of observing its actions, but aside from its tonic action on the stomach, uniformly improving the appetite as it does, I should not be inclined to have much faith in its powers over the disease.

Speaking generally of the management of this disease, sometimes during the history, evidences of high blood pressure

are apt to be present—as dizziness, palpitation of a powerful nature, heaving the chest-wall visibly over larger space than usual, oppresson of the respiration, full, tense pulse, etc. Such symptoms should be met by rest, low diet, cardiac sedatives, and in extreme cases by venesection. In the latter stages of the disease we are likely to meet with somewhat opposite conditions of debility and anæmia; and these should be met by tonic suppurative measures, both general and special, and even with stimulants. Iron may be given as in the chronic stages of nephritis to counteract advancing anæmia. If the heart's action weakens, as it sometimes does in this stage, we know that it must be maintained, else the remaining portion of the gland will fall functionally below the conditions compatible with maintenance of life. Good Burgundy, or other red wine, should be allowed, as well as a more stimulating diet. It may even be advisable to administer digitalis in small doses here, and often with excellent results, as seen in the removal of dropsy. Sometimes complications threaten the patient from another source—as the lighting up of nephritis in addition to interstitial disease. Some increase of temperature, diminished urine, containing epithelial casts, higher specific gravity of same, and a larger amount of albumen mark the approach of nephritis. The measures advised before for nephritis are to be employed and pushed with corresponding activity, to the demands of the case.

Such are the general principles which we believe to be the safest guides in the management of granular degeneration of the kidneys. It is surprising, sometimes, to see the apparent health with which some patients progress for years, if carefully guarded against complications, even after very threatening symptoms have made their appearance. I append from my notes case 32, first seen September 3, 1882. Patient is 64 years of age; gouty history; had several attacks of vertigo within the past year; fell to the ground several times as a result thereof. Urine, 50 ounces daily, sp. gr. 1010; contains 10 p.c. albumen, and a few pale casts. There is slight œdema of feet; great itching of the skin, with erythematous rash. Headache and drowsiness are prominent. Radial pulse very tense and full; the carotids pulsate visibly. Complains of fullness in the head. The heart's impulse

strong, with extended area of dullness. Patient is weak, restless, and odor of urine is perceptible in the breath. He has been too much prostrated to be able to walk for weeks past. October 20, 1883, over a year after patient came under my care, condition is as follows: Patient has gained in flesh during past year something over twenty pounds; is able to walk about, appetite is good, sleeps well at night, is clear in intellect and lively in spirits. He suffers no pain. In short, he enjoys life equal to the average, in every respect, of men his age. The urine is about normal in quantity, contains about 6 p.c. of albumen and a few pale casts. It is with difficulty I can make the patient realize that he is an invalid; yet it is plain that over a year ago he was on the brink of uremia and apoplexy, the latter of which caused the death of two of his family.

In closing the consideration of renal fibrosis, we wish to emphasize the fact, that success in its management will depend largely on its early discovery. Creeping on stealthily, as it always does, it will elude observation, unless the utmost watchfulness is exercised. No dropsy or abnormal condition of the urine is likely to attract our attention, or that of the patient, to the nature of the disease. The constitutional or special physical peculiarities of the patient himself must often be the sole guide to investigation. An unusually full pulse, with other evidences of vascular tension, should be noted. A 'gouty habit must not pass unobserved. Method of life should be noted, particularly as to indulgence in the pleasures of the table. By habitually noticing such points as these in our patients, we get to know what class of cases we are most likely to find fibrosis developed from; and thus, by anticipating the approach of disease, we make its discovery more frequent in the early stages, the advantages of which cannot be overestimated.

AMYLOID DISEASE.

In the special management of this lesion, we should have in view the fact, that it essentially differs from the preceding forms of disease in its nature, and requires an entirely different method of treatment. In nephritis and fibrosis, many of the principles underlying the treatment are very similar, and the management corresponds accordingly, often varying only, in the main, with the

activity with which the measures should be employed. Both of the preceding diseases begin in the kidney itself, and though pursuing a different course, owing to the processes attacking different tissues of the same gland, yet the force of both is ultimately made known through serious interference with the function of the gland, and measures must be largely directed in both to the restoration of that loss of function. But in amyloid disease the case is quite different. In the first place, the amyloid kidney constitutes only a part of the chain of morbid processes whose origin and cause are quite outside of the kidneys themselves, and our measures will be more largely directed to these outside influences which give rise to the disease, than the measures directed to the lesion in the renal structures themselves. In the second place, the function of the kidneys is far less interfered with here, than in the lesions already considered; and we seldom have to contend against the dangers of uræmia, or like complications. The patient is permitted to live the natural duration of the disease, unless, in the advanced stages, he succumbs to diarrhoea or dropsy. In the third place, the disease carries with it from the beginning the stamp of debility and cachexia, and calls for active supportive measures, in all cases and in all stages. It is fortunate that the amyloid kidney performs fairly its function till very late in the disease, as it permits us to carry out more fully this last indication. Urea is eliminated, little short of normal in amount, throughout the greater course of the disease, and, as a consequence, uræmia need seldom be feared, save near the close of its course. We are thus enabled to resort to stronger meat diet in this, than in the other lesions, and the indications command us to do so with liberality.

From what has been said, it will be gleaned that preventive measures form a most important element in the management of amyloid disease. Syphilis, tuberculosis, chronic suppuration, in themselves largely under the influence of remedies, command our first attention, as the most certain method of arresting the resultant disease.

It is scarcely in keeping with facts to rank this disease in the list of incurable maladies, and deprive the patient of hope, as has been the habit with some. Amyloid disease is at least as

curable as the causes which gave birth to it, and as these are removed, the progress of amyloid degeneration will usually cease; and not only so, but the lesions caused thereby themselves are capable of being removed. He would be rash indeed, in the presence of past experience and present facts, who would affirm that phthisis, chronic abscess, necrosis, dysentery, and above all, syphilis, are incurable; yet these are the most prolific causes of lardaceous kidneys, and the progress of the latter will depend on the control of the former.

Generally considered, all these patients require tonics, nourishing diet, and all measures within our resources which will improve the constitutional debility. The condition of the blood calls for the use of iron, which must be continued over an extended length of time. The neutral preparations of iron are better borne, owing to the constant weakness of the stomach in those cases. Blancard's pill is also a peculiarly appropriate form, consisting of iodide of iron, well preserved through the peculiar mode by which it is prepared. Food should be the most nourishing possible, but the most easily assimilable at the same time, should be selected, in order not to precipitate diarrhoea, so frequently the accompaniment of this disease. Red wine and diluted spirits are often great aids to nutrition, and besides, tend to stay the general tissue waste, so marked a character of this malady. Tuberculosis, perhaps the most fruitful source, requires to be treated in accordance with the principles most successful according to recorded experience. It is to be hoped that the recent important discoveries in the pathology of tubercular disease by Koch, may lead not only to more successful treatment of the same, but also, as has been suspected already by some, to the possibility of an important rôle which bacteria may play in the disease under consideration. In the management of the various suppurative processes which give rise to amyloid disease, the question becomes one largely for surgical measures. It is a fact upon record, that in those hospitals where Listerism has been most thoroughly carried out, the number of amyloid cases have very strikingly diminished. This lends strength to the rule that where suppuration exists in chronic form, more especially in bone, it must, if possible, be controlled, even at the expense of sacri-

ficing a limb. A patient can never be considered safe if a necrosis continues, though perhaps not in itself producing much drain on the general health. The urine should be examined frequently in such cases, and on the appearance of albumen operative measures must at once be employed, if practicable. I treated a case of amyloid disease of the kidneys, with which some of you are familiar, resulting from necrosis of the right humerus, which illustrates the length of time suppuration may continue without apparent damage, and considered harmless, perhaps, by the patient, till some other disturbing cause of health precipitates the amyloid degeneration. In the case referred to, the necrosis continued for twenty-two years before any kidney lesion was developed. Sometimes we meet with the amyloid disease, resulting from suppuration, where an operation may be inadvisable, the patient's general condition not warranting such risk. In all such cases it is wise to resort to the minutiae of Listerism, for the reason that it practically isolates the destructive action from the atmosphere. As a rule, so long as suppuration is limited within a walled cavity it does not give rise to amyloid disease, but when a communication becomes established with the surface, and atmosphere gains access, the mischief ensues to the kidneys.

By antiseptic dressings we may sometimes practically silence the provocative of the disease, and in the meantime by tonic measures improved the general condition of the patient to a point where an operation would become admissible and thus possibly save the life of the patient, where otherwise he must necessarily have succumbed. When the disease is traceable to syphilis, specific medication will often be followed by most satisfactory results. With the minutiae of this it does not fall within our province here to particularize, especially as the treatment of syphilis is of late clearly defined in excellent special works. Although amyloid disease is usually the sequence of the tertiary forms of syphilis, and iodide of potassium may be used with great confidence in relieving the symptoms, we may say that the prevailing opinion is in favor of the use of minute doses of mercury long continued, after the method of Dr. Keyes, of New York, not to the exclusion of iodides, perhaps, but in combination therewith. The iodide of potassium is recommended by Bartels in

all cases of amyloid disease which seems to be the only medicine he employs with the view of attacking the disease itself. It is doubtful, however, if its use is attended by any striking benefits, unless in those cases which arise from syphilis. Not so, however, the combinations of iodine, as with iron, for instance, which is a most desirable form of tonic alterative. Dickinson speaks of the use of alkalies, especially in cases attended by purulent loss. His object seems to be with the view of making good the loss of alkalies, always so great in suppuration; and theoretically also because amyloid matter is so soluble in alkalies. He afterwards admits, however, that "disease cannot be treated in a test tube," and goes on to explain that the alkalies are well borne, and in connection with other tonics give better results than tonics alone, but that on the whole "their use is disappointing." Sooner or later we shall be called upon to contend with the most obstinate and serious of the complications attending this disease, which directly or indirectly is the most frequent cause of death namely—diarrhoea. For the successful management of this complication it is well to bear in mind the pathological cause, and this is due to the degeneration of the small intestinal arteries, the epithelium of the mucous membrane and the muscular coat of the villi. The number of remedies recommended for this obstinate affection is quite formidable, and covers nearly the whole vocabulary employed for the relief of intestinal fluxes. The preference should be given to sulphate of copper in one-eighth to one-fourth grain does combined with some opiate as the compound soap pill B. P. But if the stomach does not bear the opiate well it is better to to give it by the rectum preferably in the form of deoderated tincture. The accompanying dyspepsia is to be managed as in similar conditions elsewhere found.

Dropsy seldom complicates the case till the latter stages are reached, and then it is less within the range of relief than in other forms of kidney lesions. We may relieve it by means of hot air baths, but it soon returns owing to the impoverished condition of the blood, and extreme damage to the glands, as well as the degeneration of the small vessels. We must use the hot air bath more cautiously here, owing to the greater exhaustion of the patient. Stimulants and tonics containing iron are apt to give

more permanent relief to dropsy here than the evacuant treatment. Diuretics as a rule are not called for, as the urine is largely above the normal in quantity. Visceral complications are apt to make their appearance as enlargement of the spleen and liver, which sometimes becomes enormous. The nature of the disease is the same here as in the kidneys, in fact, a part of the same process of degeneration of blood vessels and deposit of the peculiar amyloid material. If special measures become necessary for relief of visceral enlargement, perhaps the best agents are iodides, stychia and hydrochlorate of ammonia. Uræmia, as before intimated, seldom appears, save in the very last stages, and then tonic convulsions are the exception; slowly approaching stupor followed by coma closes the scene. Throughout the course of amyloid disease we should bear in mind that, as in fibrosis, we may have nephritis engrafted upon the case at any period of its history. The early invasion of such complication it is of importance to discover and apply the appropriate treatment therefor. We shall not be able to push the evacuant treatment here so energetically or so continuously as in simple nephritis, as the patient's general condition will not admit of lowering measures; hence the most careful adjustment of remedies must be sought in order to reduce the force of the more active disease, and at the same time not to aggravate the progress of the more chronic lesion.

The completion of this paper fulfills a promise made a year since, to present in a series of articles the whole subject of organic renal diseases; their pathology, diagnosis and treatment. In a field so prolific and varied as to its literature, the question which we have had to solve has not been what we should say, but rather what we should not say. Few subjects in medicine are so replete in literature, and at the same time on which opinions have been so unsettled, in nature, pathogenesis and therapeutics as this question of Bright's disease. Few diseases possess so extensive a list of remedies put forward with claims for its relief, which only tends strongly to the conviction that few of them are worthy of confidence. We conceive it to be of equal importance under such circumstances to eliminate those agents of doubtful utility as it is to indorse those which possess substantial merits. This paper is therefore burdened with the mention of few drugs and fewer

formulæ, as we believe a proper understanding of the therapeutical indications of the diseased processes will lead to the most judicious selection of remedies in each and all cases. The principles involved in the treatment rather than the details have been our study to present, for once these are comprehended thoroughly, matters of detail are more safely left to the judgment of the therapist than the unscientific and uncertain vaunting of specifics. To succeed in the management of albuminuria one must cast aside all preconceived notions of specific medicines; the action of any such can never cover this wide and diversified field of morbid changes. The management must be reduced to philosophical reasons, as in the treatment of an inflammation, varying as it must when found in one class of textures, and again in another, and while endeavoring to fathom the true principles which should guide our management in these cases, we have endeavored to avoid the vast field of hypothetical speculation which has made the literature of this subject so voluminous and so uncertain, and have studied to draw rather from the record of clinical facts, than from the realm of theory the materials which we conceived would conduce more to the acquirement of practical knowledge available at the bedside of the patient, for after all, as Froude well says, "The knowledge which a man can use is the only real knowledge. * * * The rest hangs like dust about the brain, or dries up like rain drops off the stones."

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ARTICLE II.

HUMAN PARASITES. By F. W. GODING, M.D., President of the Linnæan Science Club, Ancona, Ill.

INTRODUCTION.

A parasite is, according to Webster, "an animal which lives during the whole or a part of its existence on the body of some other animal."*

Van Beneden † defines it thus: "The parasite is he whose profession it is to live at the expense of his neighbor and whose

*From *parasitus*, to eat at the table of another.

†Animal parasites and menmates.

only employment consists in taking advantage of him, but prudently, so as not to endanger his life. He is a pauper who needs help, lest he should die on the public highway, but who practices the precept not to kill the fowl in order to get the eggs." Parasites belong to numerous different types ranging through the entire animal kingdom and the dissimilarity should be understood to get a correct idea of the subject.

Among mammals, birds, reptiles, and amphibians we do not find any exclusively parasitic types, but in each are some which to a certain extent are. Thus, the vampire bats live upon the blood of other mammals; the bald eagle depends to a considerable extent on the fish-hawk for food. There are a few fishes which are partly parasitic, e.g., some of the *Fieras feridæ* inhabit the intestines of holothurians and other echinoderms; the *stegophilus* lives in the mouth of another cat-fish.* Many of the invertebrates are parasites, e.g., the *entococoncha* lives in the intestines of echinoderms; the *cochiolepis parasiticus* is found under the scales of a worm.

Among insects, the true coleopterous types, *meloidæ*, *pselaphidæ* and *staphylinidæ* are nearly all parasitic. Of the *arachnoids* we have the *Linguatulidæ* and *Acaridæ*† infesting the skin and air passages of man.

The Crustaceans present a number of types among which may be mentioned the *Pinnotheres*, *conchodytes*, etc. Of the true worms are the leeches. Of the rotifers the *Bellatro calvus* is found in certain worms.

Among scolices, we have animals which live almost altogether in other animals, as Cestodes, Trematodes, Nematodes, etc., which will be more fully described further on.

The Polyps which are parasitic are few in number; among others are *Epizoanthus americanus* attached to the hermit crab‡ and *Polythoa* which infests a peculiar form of sponge (*Hyalonema*) found off the coasts of China and southwestern Europe.

The parasitic species contributed by the Protozoans are worm-like forms, known as Gregarinæ, inhabiting the intestines of

* *Platysloma*.

† See chart.

‡ *Eupagurus pubescens*.

vertebrates and invertebrates, especially abundant in the intestinal canal of beetles, cock-roaches, etc. Hence, it will be seen that parasites vary greatly in type, having nothing in common except the physiological character of depending upon others for sustenance.

Scarcely any portion of the human body is free from parasites; and each organ and system has its own special parasites.

Davaine* has accordingly divided them into four groups, viz.: (1) those which inhabit the cavities communicating with the exterior, *e. g.*, (a) the respiratory passages; (b) the digestive passages; (c) the biliary passages, and (d) the urinary passages. (2) Those which are contained in closed cavities, natural or accidental, as, (a) blood-vessels; (b) serous cavities. (3) Those which belong to some organic system, (a) the nervous system; (b) the muscles of animal life; (c) the lymphatic system, and (d) the inter-organic cellular tissue. (4) Those which affect complex organs, as (a) eye; (b) the genital organs. But to treat the subject scientifically it is better to study them with reference to their natural history.†

The study of parasites has received considerable attention from European writers, where their presence is much more common than here, but they have been sufficiently often met with here, and with a fatal result, that a more extended study of them is imperatively demanded.

How parasites were developed in the interior of the body was, until a comparatively recent period, a sealed book; but through the earnest investigations of Bremser, Le Clerc, C. Davaine, Cobbold, Diesing, Dujardin, and others, we are now able to study them with facility tracing them to the ovum, and conversely from the ovum to the mature animal. One peculiarity is that they rarely pass through more than one stage while in the interior of a certain animal, waiting for its next host to aid in its progress.

PART I.

ENTOZOA.—Parasites are divided into entozoa and ectozoa‡.

*Davaine, C. *Traité des Entozoaires*, etc., Paris, 1879.

†See the chart.

‡Episœa of some writers.

The former are further subdivided into *arachnoides*, *platyhelminthes*, *Nematelminthes*, and *Infusoria*.

Arachnoides are the spider-like* parasites. The only order which is found within the body is Linguatulida, consisting of but one family, Pentastomidæ, belonging to which are two individuals, viz. :

P. denticulatum.—This is the larval form of the *P. tænoides*, in which state it, as a rule, exists in man, though one case has been reported where the perfect animal was dislodged from the nose†. This parasite is found quite frequently in human bodies, encysted in the liver. The adult, *P. tænoides*, has a lancet shaped body, flattened over the abdomen, smallest at the tail, and marked with 90 transverse rings. The cephalo-thoracic segments are continuous with the body, and on each are a pair of retractile claws. The head has an oval mouth, armed with a horny lip. Breathing pores are numerous in all parts of the body, excepting the cephalic segment.

The length of the adult male is about an inch, while the female measures three or four inches.

The genital aperture of the former is found at the front part of the abdomen, while in the female it is placed at the caudal extremity. This parasite is oviporous, and passes through a complete metamorphosis, the first stage being that of the embryo, with a boring apparatus; the second, a motionless pupa; the third, or larval, having numerous rows of spines and two pairs of double claws; the fourth, the perfect state. It is while in the third stage that it is called *P. denticulatum*, and is of most interest to us. (Length, $2\frac{1}{2}$ lines).

The germs are usually introduced into the human stomach with raw fruits and vegetables, on which they are thrown by the host from its nose when sneezing.

Hence, we should be watchful when fondling dogs, as they are most liable to the trouble. Also, all fruits and vegetables should be carefully cleansed before being eaten.

As the parasite gives rise to no functional derangement, it is unnecessary to treat of it clinically.

* Mites, ticks, etc..

† Dr. Landon, of Elbing, Berl. *Klin., Woch.* No. 49, 1878.

P. constrictum.—The natural history of this parasite is as yet incomplete (so far as is known), the larval form only having been described. It is possible that the mature animal has been described under some other name. However harmless the *P. denticulatum* may be, this parasite is to be dreaded, as it has been known to cause peritonitis and pneumonitis, and death in at least two cases.

The length of *P. constrictum* is nearly three-quarters of an inch; width, one-tenth of an inch. The cephalo-thorax is provided with four foot claws, and the abdomen is made up of twenty-three rings.

They are found encysted in the liver and lungs, coiled up like a watch spring in small sacs throughout the whole organ.

“When cut into, worms were seen regularly encysted in its substance, appearing as yellow specks.”

Treatment.—As it would be impossible to diagnosticate this parasite, the principle to follow would be to meet the indications as they arise.

PLATYHELMINTHES.*—This class is divided into two orders, viz.: CESTODES and TREMATODES. CESTODES† are ribbon-like animals, some barely visible, others 100 feet long, living while in the larval state in the tissues, and as mature parasites in the intestines. They are divided into bi-sexual segments growing from the neck, and are discharged from the bowels, living a sort of individual existence. They have neither mouth nor organs of digestion, the animal to which they are attached performing the digestive act for them, the food being absorbed through the integument.

The segments impregnate themselves, become detached, are passed from the intestine, and swelling up they burst, the ova being scattered by the winds and water over the grasses, etc. The grass is then carried to the stomach of some animal, the ovum hatched into an embryo, which pierces the walls of that organ, entering the blood vessels, and finally works its way into its appropriate tissue. It now becomes encysted, and forms the so-called “hydatid.” If the tissue is eaten without being properly cooked, the cysts become developed into some form of tape-

* Broad worms.

† Cestura bands.

worm, being freed by the solvent power of the gastric juice.

The order of cestodes is divided into two families, viz., TÆNIDÆ, which have hooks and suckers on the head, and the genital organs located on the lateral edge of each segment.

BOTHRIOCEPHALIDÆ.—*T. solium** is of a tape-like form, composed of a series of bodies, each containing male and female sexual organs, and capable of self-impregnation. It resides in the intestine.

This parasite exists in two forms within the human body, viz., cystic,† in the tissue; and the sexually perfect worm, in the intestines.

It is from 15 to 25 feet long, $\frac{1}{2}$ to $\frac{1}{2}$ inch wide, and white. The head is 1-50 of an inch thick, with about 26 hooks, arranged in two series radiating outward. The common genital orifice is located at the center of the lateral border of each articulation.

The eggs are spherical, and 1-750 of an inch in diameter.

As the articulations mature, they pass from the bowel, retaining their vitality for several days. They possess the power of locomotion in a slight degree, thus being enabled to attach themselves to the grass, etc., where they have fallen. Later, they are conveyed into the stomach of some animal, where the eggs are hatched, the embryo remaining free. They rapidly bore through the walls of the intestine, aided by three pairs of spicules with which they are provided, and find their way into the tissues of the body, there to become encysted. They increase in size, and are now in the next stage of development; the six spicules are discarded, the parasite acquires a neck and head, which is provided with four suckers, and a crown of hooks similar to those of the adult tapeworm. The head and neck are inverted upon themselves, and surrounded by a globular vesicle, the body. This is known as "*cysticercus cellulosæ*,"‡ or "hydatid," and when found in the hog, the meat is called "measly pork." The parasite may remain in this state for an unlimited period of time without change, unless it be a gradual atrophy or the cyst after several years.

* Usually found alone.

† *Cysticercus cellulosæ*.

‡ From its situation.

The subsequent history deals with introduction of the *C. cellulosa* into the human intestine, and its development into the adult tapeworm.

When a piece of pork containing cysticerci is conveyed into the human stomach in a partly cooked condition, the sac is digested by the gastric juice, liberating the parasite. It attaches itself by means of the hooks and suckers to the upper surface of the intestine, where the neck, slowly absorbing nutriment, increases in length until developed into the perfect tænia.

Symptoms.—A great variety of symptoms have been given supposed to be due to the presence of this parasite, but the only one of diagnostic value is the passage of fragments from the bowels. Healthy persons may be infested for years without inconvenience, while those of feeble constitution will suffer from abdominal pains, indigestion, intestinal hæmorrhage, restlessness and even convulsions.

Treatment.—The principles to be followed in the treatment of tænia is to first produce a toxic effect upon them as they will then loosen their hold upon the mucous membrane and cause their expulsion from the bowels. Among the multitude of remedies, the following have been found in many cases efficacious: Ol. terebinthinæ, filix mas (ethereal ext.), koosso, kameela, carbolic acid, pomgranate root bark and pumpkin seed tea. The above are all of value, and it may be necessary to try several before one will be found to dislodge the worm. The manner of using the remedy is of as much importance as its selection. A very good plan is to first move the bowels slightly; second, place the patient on a light diet; third, give a teaspoonful of the following prescription after each meal in a tablespoonful of water for three days; then if the worm is not dislodged, fourth, give a slight purge:

R	Granati radidis cort.	90. c. c. or grs.....	℥iij
	*Ext. filicis fluidum	15. " "	℥ss
	Syrup rhei	45. " "	℥jss
	Mix. Sig., take as directed above.		

* Ethereal extract

Cysticercus cellulosæ.*—This is in very close relation with the above, and it is sometimes found in man. We will devote a few lines to it.

This parasite is found in the following localities: In the cellular tissue beneath the corium, between and in the muscles, on the surface and in the interior of the brain, in the envelopes and inner chambers of the eyeballs, in the heart, lungs, mesentery and lymphatic glands.

Symptoms.—The symptoms depend on the number of parasites and the importance of the organ or tissue infested. In the subcutaneous cellular tissue they are usually harmless, while in the eye one may seriously interfere with vision; and in the brain the local irritation may cause vertigo, paralysis, convulsions and death. One case is recorded† in which a young man twenty-two years of age, apparently in good health, fell dead in the street, the fatal result being due to the presence of a cysticercus within the *pons varolii*. A correct diagnosis was impossible during life. When subcutaneously located they are sometimes felt as small round hard bodies.

Treatment.—The treatment is excision of the cyst where practicable, but it may be the plan recommended by Prof. Rand for treating "trichanosis," (q. v.) will be useful.

The parasites are undoubtedly introduced into the system by swallowing food containing the ova, as meats, and more frequently green tops of garden vegetables. Hence such articles of food should be well cleaned and properly cooked.

C. tenuicollis.—This is the larva of *tænia marginata* and evidence proving its presence as a parasite in the human body is slight, but Cobbold considers that two undoubted cases are known. What was stated about the above will be sufficient for this species. The mature worm is common in the dog.

Tænia acanthotrias.—This is identical in appearance with *T. solium*, and is considered by good authorities to be a mal-formed variety of that parasite, the only difference being three rows of hooks on its rostellum, while the *T. solium* has but two.

T. medio-canellata.—This cestode is derived from the *cys-*

† For an account of its development see Tolman.

‡ Cobbold "Parasites," p. 92.

ticercus bovis found in beef. It very closely resembles *T. solium* being, however, much larger and stouter. The head is club-shaped with four suckers and a depression in the center corresponding to the rostellum of its cousin; but the coronet of hooks is wanting.

This parasite varies from fifteen to twenty feet in length.

Symptoms.—See *T. solium*.

Treatment.—The expulsion of this parasite is much more easily accomplished than that of *T. solium* the same method being used.

Echinococcus hominis.—This parasite with its sac and contained liquid is commonly called “hydatid.” It is a juvenile stage of *T. echinococcus* found in the dog and wolf, and it developed into that state upon gaining entrance into the alimentary canal of those animals. Each parasite consists of a body and head. Around the latter is found a row of sharp hook-like teeth. The body is solid and a number of ovoid bodies (ova) beneath the external coat gives it a speckled appearance. The length of the perfect cestode as found in the dog is from one-fourth to one inch.

The *E. hominis* is found in the liver, ovaries, lungs, kidneys, testicles, brain, muscles, bones, uterus, spleen, heart, etc.

Hydatids are dangerous from pressure upon neighboring organs interfering with their action, or they ulcerate and rupture causing death from contact with the peritonæum and pleura. Occasionally they ulcerate and the *echinococcus* dying atrophies, terminating in a spontaneous cure.

Diagnosis.—The diagnosis is frequently difficult. If a tumor is found giving dullness on percussion, with perhaps the hydatid fremitus, and under the microscope the aspirated liquid shows hooks and other parts of the cyst, a diagnosis would be reasonably certain. The prognosis depends upon the situation, size and rapidity of growth of the tumor.

Treatment.—Besides a spontaneous cure referred to above, the cyst may rupture, discharging its contents into the bowels, stomach, lungs, ureters, etc., completing a cure. But the treatment proper may be either medical or surgical. Arranged under the

*The head of the tibia is a common resting place for them.

first head we find recommended the administration of bromide and chlorate of potassium, chloride of sodium, male fern, oil of turpentine, calomel, kameela, etc. As a rule this method of treatment has been a failure, while the surgical treatment, viz., excision wherever practicable, and in other cases aspirating the cyst causing the death of the parasite, followed by atrophy of it, is the most satisfactory. Electro-puncture has been employed by an Icelandic surgeon with a success warranting further trial. Prophylactic measures should be employed where and whenever the disease is prevailing, such as destroying the excreta of the dogs from which the ova is indirectly introduced into the alimentary canal of man.

T. nana.—As regards the dwarf tape worm, unless Spooner's case* be genuine, there is but one solitary instance on record of its occurrence in the human body; moreover we have no evidence of its having existed in any other host. It was discovered by Dr. Bilharz, of Cairo, at the post mortem examination of a boy who died from inflammation of the cerebral membrane. Prodigous numbers existed. The largest specimen measured only one inch in length. To the naked eye these worms resemble short threads, and consequently they might very readily be overlooked. The head is broad and furnished with a formidable rostellum armed with a crown of hooks. The hooks have large anterior root processes, which extending unusually forward impart to the individual hooks a bifid character.†

T. flavo maculata.—This cestode was first discharged from an infant nineteen months old. The length varies from eight to twelve inches; the joints being very broad, narrowed from above downwards; near the middle of each joint may be seen a number of yellow spots, representing the male organs of generation, the outlets occurring all along one side of the body.

T. lophosoma.—This cestode measures about eight feet in length; breadth one-fifth inch, and one-thirteenth of an inch thick. There is a ridge running the entire length of the parasite, hence, the proposed common name "ridged tape-worm." The

* American Journal Medical Science, 1873.

† Cobbold.

reproductive papillæ are very prominent. The eggs have a diameter of about one eight hundredth of an inch.

For symptoms and treatment of the last three parasites, see *T. solium*.

BOTHRIOCEPHALIDÆ.—This family is characterized by having two narrow lateral furrows without hooks on the head. Three species have been found inhabiting the human body.

B. latus.—This cestode derives its name from the width and shape of its articulations, being considerably broader than long. It is found in the cavity of the small intestines. The color is blueish-white, sometimes brownish in the middle. Length, very great, amounting in some cases, to over 2,000 articulations. Width, about one inch. The head is oval, one twenty-fifth of an inch in diameter, and capable of assuming various forms. The male and female organs of generation are distinct, those of the former being farther in front. The mature eggs are oval, $\frac{1}{870}$ of an inch long, provided with a lid for the escape of the embryo. The outer membrane of the embryo is covered with ciliæ, while within is a vesicle provided with three pairs of spiculæ, like those of the *Tæniæ*. The mature articulations are discharged from the bowels in chains after having evacuated the ova.

The history of the development of *B. latus* has not been determined with any degree of certainty, but as far as investigations have been carried, they point to the different varieties of fishes as the breeding places for it.

B. cordatus.—This cestode infests only the residents of Greenland, and corresponding longitudes. It is usually about one foot long, closely resembling the above as to its anatomy, except the head which is heart-shaped, the apex directed forwards.

The symptoms and treatment do not differ materially from those caused by other tape-worms.

B. cristatus.—I can find but two cases reported of this parasite (*Davaine). He states that it is nine or ten feet long, and is characterized by two prominences, together forming a crest covered by papillæ. The segments are one-half an inch in breadth, the entire worm being narrower than *B. latus*.

*Traité, art. Les Cestodes. Bibl. No. 2, p. 580.

* TREMATODES.—An order of *Platyhelminthes* not articulated, and the integuments free from ciliæ in the embryo. They are provided with one or more suckers, by which they attach themselves to the animal unwillingly acting as their host. The alimentary canal is forked, without an anus; the vascular system is undeveloped, but there is an urinary apparatus, with an excretory tube. They are mostly hermaphrodite; but as there is no connection between the organs of generation, it requires the union of two individuals for impregnation.

Trematodes exist in two forms, viz.: encysted and free. Their mode of development is very interesting. The perfect worm deposits an egg, which hatches into a sac, formerly known as *Opalina*, itself an entozoa, and once believed to be an Infusoria. This gives birth by internal germination to one or more *cercariæ*, or oval tailed organisms, which swim actively in the water, and if possible, enter the bodies of fishes, etc., and, either directly or indirectly, into the stomach of man. Here they develop into *Trematode* worms or liver flukes. We find them divided into several families, but one being interesting to us, viz.: Distomidæ, members of which we will proceed to describe.

D. hepaticum.—This has been found under the skin in various parts of the body, but it is most frequently found in the gall ducts and sac, where as many as 30 or 40 have been found in one patient.

The sexually mature fluke measures $\frac{3}{4}$ of an inch in length, and is about $\frac{1}{2}$ an inch through its greatest diameter. The body is very flat, with the anterior end so constructed as to form the head and neck. The mouth is found at the root of the neck; the reproductive organs in the mesial line just below. These organs are marked by dark spots and lines showing the extent of the male and female organs. The surface of the body is covered with minute spines which have diminished in size toward the posterior extremity.

D. crassum.—This fluke is about two inches long, and $\frac{5}{8}$ of an inch broad. The alimentary canal in this species is not branched, but double; the body pointed in front and rounded behind. But few cases have been recorded.

* A hole.

D. lanceolatum.—Three cases of the occurrence of this parasite have been recorded.

This is the lance-shaped fluke, and measures $\frac{1}{3}$ of an inch in length, and $1\frac{1}{2}$ lines in width; both ends are pointed, but the posterior is more obtusely so. The surface is smooth, without spines.

These are found in the biliary passages, usually existing without causing any untoward symptoms; but they occasionally are the cause of grave disorders, as the "dysentery of the Nile," etc.

The patient will have the symptoms of intestinal irritation; foul tongue; surface cold; pulse accelerated; indigestion; nausea; headache and diarrhoea; occasionally vomiting, and passing per ani blood persistently. The treatment would depend upon the symptoms; but expulsion of the parasite should be secured. Ordinary vermifuges are, as a rule, inefficient, remedies that will profoundly affect the system being indicated.

Great care should be exercised when eating oysters, clams, fish, etc., to see that the flesh is well cooked, as it is through them that the parasite is introduced into the body.

D. hæmatobium is found in the abdominal venous system, especially in the vena porta, and may occasion serious nervous and other disorders. It occurs in $33\frac{1}{3}$ per cent. of the population of Egypt. The males and females are distinct, the male being $\frac{1}{2}$ an inch long, and cylindrical; the female being filiform, and $\frac{1}{3}$ of an inch long. The surface of both sexes is smooth.

D. heterophys.—This minute parasite is $\frac{3}{4}$ lines in length, and was first found in the intestines. It is pear-shaped, the small end being anterior, while the entire surface is covered with spines. The ventral surface is provided with a peculiar disk, supposed to aid as a "hold fast" during the sexual act.

Tetrastoma renale is five lines long; found in the urine.

Polystoma pingucicola is eight lines in length; was found in a tumor connected with the ovary.

P. venarum is three lines in length; it has been found in venous blood and sputa of patients troubled with hæmoptysis. This species is doubtful, and is supposed by some to be the young of *D. lanceolatum*.

D. ophthalmobium is about 1-24 inch. in length, and of an oval

shape. It was found in the eye of a child suffering from congenital cataract; frequently called "the eye worm." This species will probably prove to be the young of some of the above parasites.

The treatment is simply palliative when dealing with the parasites noticed above.

NEMATHELMINTHES.—The *Nematelminthes* next claim our attention. They have cylindrical bodies, and are distinctly unisexual; there are no organs of special sense, but the alimentary canal is perfect throughout. But one order has been found in man, viz.:

* **NEMATODES.**—In these parasites the body tapers toward each end, and has a distinct muscular system; the mouth is at one extremity; the anus at, or near, the other; the alimentary canal consists of a thick-walled pharynx and the intestine, a simple tube representing the stomach and œsophagus; the nervous system consists of a ring of fibers and nerve cells around the pharynx; the sexual organs, as a rule, are distinct, those of the male being near the posterior extremity, while those of the female are near the center of the body. The spermatozoa are cell-like and amœboid.

About a dozen species are known to inhabit man, and may conveniently be arranged into four families, viz., **ASCARIDÆ**, **STRONGYLIDÆ**, **TRICOCEPHALIDÆ**, and **FILARIDÆ**.

The **ASCARIDÆ** have two representatives.

A *lumbricoides*, inhabiting the intestine. The body is round, with a smooth surface, yellowish in color, tapering toward the head. The head commences abruptly by three tubercles which surround the mouth; the body is marked with transverse lines, and with four lines from the head to the tail. The males are about six inches in length, while the females are a foot, and even eighteen inches. The natural history of this species is as yet not fully known.

Symptoms.—The discharge of the worms is the most important and only reliable symptom. Many others are mentioned by writers, as itching of the nose, convulsions, grinding the teeth

* Threadlike.

while asleep, etc.—symptoms showing intestinal irritation. Sometimes the worms are vomited. A child living here was troubled with this parasite recently, and getting frightened at the appearance of the stranger after handling it, rubbed his eyes while crying, whereupon the lids became enormously swollen, completely closing them. Tr. of lobelia will reduce the irritation and swelling in a short time if applied to the parts.

Treatment.—The indications are, first to expel the worms present, and second to prevent their re-accumulation. The most efficient means of fulfilling the first is the administration of san-tonin, spigelia and senna, tansy, or wormwood.

They usually find their way into the system in the drinking water, hence avoid shallow wells, pools and creeks for water supply.

A. alata.—This is comparatively unimportant to the physician, being rarely found in the human subject. It is found in the domestic cat frequently.

For symptoms and treatment, see *A. lumbricoides*.

A (Oxyuris) vermicularis.—This is by far the most frequent of all the parasites infesting the human body. They are most frequently found in children. I have seen several cases occurring in the adult; one young lady aged 18, was troubled to the extent of preventing her from aiding in the housework owing to the intolerable itching and nervousness. The seat, or pin-worm, is of a fusiform shape, the male being about one-sixth, and the female one-third to one-half an inch in length. The female possesses a long, slender tail, terminating in three points, which are to aid the parasite in attaching herself to the intestine. The surface is white and transversely lined. They inhabit the rectum usually, but occasionally find their way into the urethra and vagina.

Symptoms.—This parasite usually causes an intense itching pain in the rectum, tenesmus, excitation of the genitals, etc. The pruritis ani is caused by an herpetic eruption there which, when present, should always excite suspicion. The irritation may occasion loss of sleep, and thus impair the general health. They are sometimes voided in large masses, agglutinated together with mucous.

Treatment.—The same anthelmintics used for *A. lumbricoides* may be used here; injection of salt and water once or twice daily are good; also of vinegar, camphor, etc. Santonin suppositories are usually effective, and are considered the best remedy by many.

In all cases where worms are known to exist in the bowels, attention should be paid to the general condition of the digestive organs.

STRONGYLIDÆ.—The family characteristics are: the body is round and sometimes very much elongated; the mouth is round, oval or triangular, and located at the extreme end of the body; the tail of the male is furnished with a bursa emitting two spiculæ.

S. gigas—Is the largest nematode parasite known to infest man, the male measuring from ten inches to a foot in length and one-fourth inch. wide, while the female is over three feet in length, its transverse diameter being one-half inch. The body is of a reddish color, the head obtuse and furnished with a simple oval aperture surrounded by six chitinous nodules.

The mode of reproduction is viviparous. This worm is found in the kidneys, bladder, abdominal cavity and omentum in man, and in the liver and lungs in some of the lower animals. When found in the kidney the substance of that organ is disorganized and its place occupied with a sanguino-purulent liquid in a short time. It is rare in man.

S. quadridentatus (Dub.): Is found in the small intestines, and causes a form of anæmia by piercing the walls of the intestine producing hæmorrhage, and at the same time abstracting large quantities of blood for their own subsistence. It is frequently found in Europe, Africa and South America (Brazil), but rarely in North America.

This ematode is from three-eighths to one-half an inch long. The head is pointed and bent so that the mouth is toward the vertex. The body terminates in a sharply pointed tail in the female, and a blunt point in the male.

Symptoms.—Resembling ordinary anæmia.

Treatment.—Turpentine is said to rid the person of this parasite by killing it.

S. bronchialis.—This was found in the bronchial glands of an emaciated subject. It is of the ordinary shape, of a yellowish color, the male being one-half, while the female about one inch in length, about one-fortieth inch broad. The bursa is nearly bell-shaped in this species.

TRICHOCEPALIDAE.—But two species of this family have been found in the human body, and one of them is one most dangerous of all parasites.

T. dispar, so called from the hair-like appearance of the cephalic extremity. It is nearly two inches in length, the capillary portion forming about two-thirds of its length. It has been found in the cæcum, colon, and rarely in the small intestine. It is propagated by means of ova, which may be found in the dejection with the aid of the microscope, a fact which might be utilized.

The *T. dispar* is found in bodies of persons who have died from various diseases, viz., typhoid fever (A. Flint), in one case enormous quantities being found in the cæcum, the patient having died from symptoms of meningitis. No lesions of that disease were found after death. J. L. Smith says he knows of no symptoms caused by its presence, and requires no treatment, although any of the parasiticides may be used, followed with a cathartic.

Trichina spiralis.—As stated above, this is one of the most dangerous parasites infesting the human body. Also found in the muscular tissue of the hog, rat, etc. As commonly found, it is in a quiescent, encysted state, occupying the voluntary muscular system. The cyst is oval, about one-tenth of an inch long, and when recent, quite colorless; but after a time they become partly opaque, from a deposit of calcareous matter. Then they may be seen as minute, whitish specks scattered throughout the infected part.

This worm lies in the cavity of the cyst coiled upon itself hence its name. When stretched out it is cylindrical, $\frac{1}{2}$ of an inch in length and $\frac{1}{650}$ of an inch in diameter at its posterior extremity which is blunt and rounded, while the anterior is tapering and slender. The mouth and anus are located at either extremity, the alimentary canal extending in a direct line from

one to the other. The sexes are separate, but the organs of generation are incompletely developed. The worm may be seen to be more sluggishly. In this imperfect and practically sexless condition the parasite may continue for an indefinite period of time retaining its vitality, but undergoing no perceptible change. When, however, a piece of flesh containing the cyst is eaten by man in a partially cooked condition, the flesh with the cyst wall is digested and the worms set free in the cavity of the intestine. They increase in size in two days, being developed into the perfect trichinæ. Fecundation now takes place by a union of the sexes, and in seven days from the introduction of the food the female discharges living embryos from the vulva in immense numbers (500 to 600), and as the generative act continues for seven to ten days, they probably give birth to at least one or two thousand living young. The embryos are now about $\frac{1}{200}$ of an inch long, resembling the mature parasite. They immediately penetrate the walls of the intestines and disperse over the body, being found in the intestinal walls, mesentery, diaphragm, peritonæum and pleura and in all of the *voluntary muscles, the passage being made very rapidly having been found on the eighth day after eating infested meat. They are quite free when first found in the muscular tissue, but soon become encysted and then grow to the proper size, there to remain quiescent until taken into the stomach of another animal when they pass through the same metamorphosis as did their parents.

This process of development of the adult trichinæ in the intestines and the dispersion of the young produces a very dangerous and sometimes fatal illness in the person called trichinosis. Its earliest symptoms are those of intestinal irritation, viz., abdominal pains, nausea, vomiting and diarrhœa, accompanied by anorexia and fever, followed by œdematous swellings of the face, body and limbs, with muscular pains and tenderness, especially on motion; the patient lies helpless with the extremities in a semiflexed position, any movement causing intense suffering. There is also difficulty of mastication and deglutition caused by the invasion of the corresponding muscles by trichinæ; hoarse-

* A case was reported for the Chicago *Tribune* during the winter of 1881-2, in which the heart was penetrated by trichinæ. Drs. N. S. Davis and R. L. Rea were in attendance.

ness and loss of voice by their presence in the larynx, and if in the diaphragm and intercostal muscles greatly impede respiration. In one case reported it was estimated that there were 30,000 to the cubic inch in the gastrocnemius, 70,000 in the biceps, and in the deltoid over 90,000. "The severity of the disease depends on the quantity of trichinous food ingested, and the number of living parasites it contained." In severe cases death may ensue within two days from the intensity of the diarrhoea and fever, but usually it does not occur until the fourth or fifth week. If the patient lives after that period, he stands a fair chance of recovering, gradually returning to comparative health, but suffering from some stiffness of the muscles. The trichinæ are then encysted and remain so. It is doubtful if they are ever absorbed, having been found in the flesh of a man eighteen years after the attack of the disease.

Treatment.—The indications for treatment are, first, to drive the parasite from the alimentary canal (*per ani*), and second, if possible, destroy it. Cathartics have been given to fulfill the first indication, while benzine has been employed to kill the parasite, with some success. Carbolic acid has been recommended. The fever and pain are to be controlled by appropriate treatment. These remedies are to be used while the trichinæ are yet in the intestines. Lately Prof. B. Howard Rand has proposed a mode of treatment to be tried after they have entered the tissues. He proposed to kill them by mercurial salivation, getting the patient completely under the influence of mercury, which being a parasiticide he thinks will destroy the trichinæ. If mercurials are for any reason contra-indicated, he recommends sulphur to be used in the same manner. Prevention is the true way of meeting the difficulty, and as the parasite is introduced into man by means of pork, all should see that that kind of meat is heated at least above 160° F., as that is sufficiently hot to destroy the cyst.

FILARIDÆ.—This family consists of several members having hair-like forms, and nearly all are parasitic.

F. medinensis.—This parasite is from 6 inches to 4 feet in length and one-ninth of an inch in a diameter. It prevails in Africa, India, and Arabia in Asia, and the United States.* The body

* This parasite occurred in the person of a relative residing in Massachusetts.

is cylindrical ending in a tail. The head is convexly flat with the mouth in the center, and that organ surrounded by four papillæ. They are viviparous. The male is unknown. The larvæ pass a portion of their existence within the bodies of some crustaceans. They then, in some manner, as yet unknown, pass into the human body probably by means of the drinking water and reach maturity. The female gets beneath the skin of a human being developing with its contained young into a whip-like cord just beneath the integument. To reach maturity requires a variable length of time, probably less than one year. It then approaches the surface causing a small ulcer through which it discharges the young after which it may be drawn out. The parasite usually causes no inconvenience; but occasionally it causes severe pain and even death. The Egyptians pour cold water on the skin over the parasite sometimes causing it to crawl out.

Tr. assafoetida in 30 drop doses three times each day will poison the worm.

Preventive.—Persons living in infected regions should filter the drinking water.

F. popillosa (*F. oculi*, of veterinary writers) is commonly found in the eyeball, also in the tissues, thorax, abdomen, membranes of the brain, muscles and cellular tissue. The males and females are three and seven inches respectively. The head is broad with a wide hard mouth armed with two denticles; two other denticles will be found on the sides of the neck and sixteen on the tail—eight on a side.

The worm migrates into different tissues, the track, of a yellowish color being readily seen by the naked eye. The natural history is as yet unknown. When occurring in the eye of the horse they are frequently extracted by veterinary surgeons.

F. lentis measures from one-fifteenth to three-fourths of an inch long, found in the crystalline lens. Probably this is the sexually immature *F. lacrymalis* of Gurlt.

F. trachelis measures about one-fiftieth inch long; it was found in the trachea and larynx of a person dying from some disease of the lower extremities.

F. bronchiaeis is from one-half to one and one-half inches in

length, and found in the bronchial glands. The tail of the male has a bursa bilobed and and bell-shaped. The tail of the female is pointed. They are of a pale yellow color and viviparous.

F. sanguinis hominis, Lewis, is the immature, *F. bancrofti* Cobbold. The mature female is about the size of a hair and three inches in length. The mouth is circular and destitute of papillæ. The neck is narrower than the body with the reproduction outlet near the head; the tail is blunt, the anus near the tip. The immature form as existing in the blood, is $\frac{1}{3}$ inch long. The parasite always exists in the vascular system rarely causing much inconvenience; but in the African race they occasionally cause grave disorders, such as chyluria and elephantiasis, and derangements of the nervous system. They have been found in abscesses of the lymphatic glands. They seem to be conveyed into the human blood by means of the musquito, having been found in the stomach of that insect.

INFUSORIA.—Is the highest division of Protozoa; they possess a mouth, a rudimentary digestive cavity and vibratil ciliæ. They are extremely minute and have the power of swimming about freely; but some species are fixed in the adult state.

Paramecium coli has frequently been seen in the dejections of fever patients, and those suffering from Cochin-China diarrhoea.

Cercomonas urinarius, has been found in the bladder and urine of a patient by Hassel.

C. soltans was found in the ovaries by Ehrenburg.

C. hominis, found in the colon and evacuations of cholera patients.

Tricomonas vaginalis, found in vaginal mucous.

PART II.

ECTOZOA.—These are animals which live upon the body of other animals, in some cases within the integument. They are usually articulates, and belong to a very low order of INSECTA and arachnoida. It has been a question and but recently satisfactorily answered, if these creatures were the cause of certain diseases, or the diseased condition the proper soil for their progagation. We are indebted to Schiodte, of Denmark, for the settlement of this.

The DIPTERA is the only order of insects represented among human ectozoa. It is represented by the family PEDICULIDÆ, consisting of three species.

P. capitis, or common head louse, is a small wingless animal, with a small thorax and large abdomen. The head is provided with hooks and beak to draw the blood from its victim, after attaching itself by means of the beak. There it revels in human gore, to the intense misery of its unfortunate host. The eggs are oval, and attached to the hairs.

Treatment.—First enforce cleanliness; then an ointment prepared from sulphur, mercury, seeds of sabidilla and stavesacre, root of pyrethrum; also, any of the essential oils and alcohol may be applied over the parts infested. The eggs or “nits” may be removed by frequent washings with alcohol or vinegar.

P. vestimenti, the body louse, closely resembles the *P. capitis*. The eggs are round, yellowish white, and are always found in the folds and seams of the infested clothing—the home of the parents.

Treatment.—The proper way to destroy both insects and eggs is to place the clothing in the oven, and subject them to a considerable baking; then enforce cleanliness.

P. pubis, or crab louse, is found where the coarse hair grows, viz., the pubis, legs, chest, axillæ, beard, eyebrows, etc., but never enters the hair. Each variety has its own place of habitation, live there and there only, never trespassing upon the soil of its neighbors.

Treatment.—See *P. capitis*.

Æstrus humanis is a bot fly, which deposits its eggs in the skin of man, probably in the sweat tubes, where they hatch into larvæ or “grubs.” They form boils, or even ulcers.

Treatment.—The opening in which the *æstrus* introduced the eggs should be enlarged, and the grub pressed out.

(I have met with one case, occurring in the person of my grandmother.)

PULICIDÆ is the flea family. It is represented by two species.

P. irritans, or common flea, is occasionally seen on the human

body. The bite is very irritating, however usually causing no serious symptoms.

Treatment.—Cleanliness and insecticides.

P. penetrans, or chigœ, is smaller than the *P. irritans*, with a proboscis as long as the body. The female only penetrates the skin, where she swells into a white globular vesicle about the size of a pea within a few days, causing intense pain.

Prognosis and treatment.—The parasite should be withdrawn with a needle, the entrance being easily seen, marked by a little red spot. When neglected, or carelessly ruptured, the young are scattered in the wound, where they mine passages, causing very serious gangrenous ulcers and sometimes death. Amputation would then be indicated.

ARACHNIDA.—Is represented by the order ACARINA, containing the mites. One family of this order will be treated of, viz., ACARIDA, which is divided into several sub-families, two of which are interesting to us—*Hypoderinæ*, or subcutaneous mites, and *Sarcoptinæ*, or itch mites.

Arachnida are distinguished by the following characteristics: Head and thorax amalgamated into one piece; no true antennæ; four pairs of legs; breathing various. Contains spiders, ticks, scorpions, etc.

A. folliculorum, or pimple mite. These are harmless parasites, found in the ducts of sweat glands, especially those about the nose. Length, 1-100 inch. It has been asserted that no one is free from them. When present in large numbers they may excite irritation of the skin, producing an acne-like eruption. I have in my possession two specimens of this parasite, taken from the skin of a dog*. In this case there was an extensive eruption wherever the pimple mite existed.

Treatment.—If any is necessary, any of the parasitocides mentioned for *P. capitis* may be applied.

A. scabies, or itch mite, the cause of itch. It is a minute whitish insect, from 1-100 to 1-50 inch long, the male being least often found. The female is usually found at the end of the burrows they mine where she deposits her eggs. She makes her

* By Prof. Lester Curtis.

way beneath the epidermis by means of suckers or disks upon the legs, and bristles on the back directed backward. Hahneman thought the itch was the primary cause of all diseases. Years ago there were several varieties of itch, viz., "Jackson's itch," "Seven year itch," "Army itch," etc., but they are now known to be caused by the presence of the same insect, *A. scabei*. When burrowing in the skin the mite causes intense itching, and sometimes a vesicular eruption. If the disease progresses beyond this stage, it is due to the scratching done by the patient. As the mite requires a soft tissue to work in, they are usually found between the fingers.

Treatment.—The disease will remain until the parasite is destroyed. Cause the death of the mite, and then reduce the inflammation. First cleanse the parts thoroughly, and soften with soap and hot water; then apply common sulphur ointment, carbolic acid, kerosene, etc. Treat the vesication and inflammation with cosmoline carbolized.

ARTICLE III.

PRE-NATAL INFLUENCES AS AFFECTING THE TEETH. By GEO. H. CUSHING, D.D.S., Professor of Operative Dentistry in the Chicago Dental Infirmary.

In considering the pre-natal conditions that may influence the character of the teeth, we must start with the proposition that perfect and healthy children can only spring from perfect and healthy parents.

While this implies that just so far as the parents diverge from the conditions of physical perfection and health, just so far will the offspring be physically imperfect and unhealthy, yet it will hereafter be seen that this proposition must to some extent be qualified.

Considering man simply in the nature of an animal, it would seem not unreasonable to suppose that if he were living in a purely natural state he would be almost or quite free from defective teeth.

So far as we know, the wild animals are, as a rule, exempt

from diseases of the teeth, and they reproduce their kind with close approach to perfection of type; and, were the animal *man* under like natural conditions, the same results ought to be predicted of him.

But whether the conclusions naturally to be drawn from the last proposition, viz., that decay of the teeth is a disease due to civilization, be accepted or not, it probably will not be denied that man is living, in a certain sense, in an unnatural condition, and that the state which we term civilization tends more and more to force him into artificial conditions of life, farther and farther removed from the simple methods intended by nature for his existence, and that this must tend in a greater or less degree to modify his physical status.

So we are forced to consider this question from the standpoint of the present status of man with reference to his perfection or otherwise as an animal, and his healthy and unhealthy condition.

Under what conditions, then, do we as a general rule see the reproduction of the species conducted? In no case where either parent is in a perfect physical condition, and often with one or both parents in an absolutely unfit condition to become progenitors because of their being in a pronouncedly unhealthy condition.

Parents in the last stages of consumption, with incurable diseases of many kinds, with scrofulous diatheses, and those with constitutions utterly wrecked by over-indulgence and long-continued violation of the laws of health, or by reason of repeated attacks of various acute diseases, are continually and always bringing children into the world.

What can be expected of the offspring of such parents? Only that their organizations will be to a greater or less extent imperfect even under the most careful attention to the conditions of the mother during the period of gestation and lactation.

In so brief a paper as this, it would be impossible to go to any extent into the consideration of all the pre-natal influences which might modify the condition of offspring. The laws of heredity under which certain types may be handed down from remote ancestors; the accidents and acute diseases to which the most

healthy women are liable during pregnancy ; and the seeming contradictions of physiological laws in well-known observed cases, all these things have a marked influence, but they can be only incidentally alluded to.

Under the general proposition that only healthy parents can beget healthy offspring, it becomes apparent that the utmost care and attention should be given toward perfecting the health of the mother from the moment of conception till she ceases to nourish her child.

This care of course secures the highest possible development of the child in all respects, but its importance as regards the teeth is greater than in any other direction, for the reason that the teeth retain with comparatively little modification, the character which is given them at the time of their formation. The other parts of the body may have been but imperfectly nourished and so but imperfectly formed and developed and yet the recuperative power of the constitution may subsequently bring up to a near approach to health that which was imperfectly begotten, while the teeth will always bear testimony to their imperfect original construction. Consequently everything that tends to promote the health of the mother is indispensable to the perfection of the teeth, while everything calculated in any degree to lower the standard of health in the mother will be sure to prove more or less injurious to the teeth of the child.

It would be a work of supererogation to enumerate here the course and methods that mothers should pursue to secure the highest physical condition,—the whole matter would be summed up by saying she should conform entirely to hygienic laws, but it will never be out of place to emphasize the importance of mothers giving extraordinary attention to this subject.

You need only to cast your glance upon an hundred mothers whom you have known during the period of the rearing of their young, to note how entirely indifferent they generally seem to be with regard to this matter. The lives of excitement they lead, the late hours they keep, the pernicious habit of tight-lacing that many of them follow, their neglect of exercise and the kind of food they eat, all tend to show their indifference, while the persistence in such habits can tend to but one result, viz.: the bring-

ing into life of very imperfectly formed and poorly nourished offspring.

In a general sense there can be no controversy with regard to the propositions thus far so briefly laid down, and yet we see occasionally seeming contradictions of them. We may sometimes see parents of very poor physical condition, and whose teeth are of the poorest quality whose children will prove to be remarkably healthy and their teeth will astonish us by their strength and immunity from decay (caries). In such cases the law of heredity may and doubtless does play an important part, and the child probably inherits from remote ancestors the fine physique and strong teeth which belonged to neither of his immediate ancestors.

On the other hand, we may see the very reverse of this in the case of parents who are in comparatively perfect physical condition, with strong and sound teeth whose children will have an imperfect physique and very frail teeth. The same law of heredity may also explain this anomaly.

Again, we may find that a mother who will be in miserable health during the entire period of utero-gestation, whose appetite will be poor and capricious, and who does not take sufficient or properly nourishing food, may bring forth the most robust and healthy child, while on the other hand a mother who may pass through this entire period seemingly in perfect health, and who may strictly observe hygienic laws, will produce a delicate and sickly child. These last cited cases are in seeming contradiction to physiological laws, but they, with the others referred to, are only exceptions to the general rule and must not be counted on as any excuse for the slightest relaxation of vigilance over the health of all mothers during the period of gestation and lactation.

Of the influence of food upon the teeth, it might be thought that what has already been said would cover the whole ground, but it does not fully do so. Of course, if we had healthy parents to deal with, and they understood the laws of hygiene, and appreciated the importance of the strictest compliance with those laws, there would be no necessity for saying anything more. But, unfortunately, we have not such people to deal with generally; and sometimes those who have an understanding of what is

proper, and who seek to do all in their power to secure the highest physical condition for themselves, and consequently for their offspring, are unable, from diseased or morbid conditions, to obey every hygienic requirement. Many mothers, during the period of child-bearing, are very capricious in their appetites, often craving food that is the least desirable for them on general principles, and loathing that which would most certainly supply the requisite elements for their own and their child's complete nourishment. In such cases we must attempt to supply, by artificial means or by specially prepared foods, the elements which fail to be assimilated in the ordinary way.

As affecting the teeth especially, though also the general system the lack of the phosphate of lime in the tissues, is particularly observed in cases like those just referred to. These phosphates should be furnished in the ordinary diet in ample proportions; but in some cases, as above stated, the mother can not, and in others *will* not, use the proper diet; while in other cases, in which the most desirable food is taken, and, although digestion seems to be perfectly performed, yet the phosphates are evidently not thoroughly assimilated.

In many cases where the phosphates fail to be assimilated from the natural food they do seem to be from other sources.

It has been claimed by some practitioners that they have succeeded in materially improving the conditions of the teeth of offspring by the administration to mothers during pregnancy of the crude phosphate of lime.

Later, the syrup of the lacto phosphate of lime was introduced and extraordinary claims were made for it by the French physician who first called attention to it. He claimed that by the preparation of the phosphate of lime with lactic acid it was partially digested before being taken into the stomach, and thus was more easily and surely assimilated. Many practitioners, both of dentistry and medicine, feel confident that they have seen excellent results follow its use.

Another form of phosphates which greatly commends itself, is the preparation of wheat phosphates made by E. H. Sargent & Co., of Chicago. This seems to furnish an admirable method of administering the required elements, and is perhaps preferable to

any other. It is simply a condensed and easily digested form of phosphatic food, though there may be cases in which the syrup of the lacto phosphate of lime would be more easily tolerated.

There can be no question but that the habitual use of Sargent's preparation or of the syrup, by mothers during pregnancy and lactation, is likely to prove beneficial to the teeth of the children, and also to those of the mothers, and it should always be prescribed where there is probability of imperfection in the dental organs from either inheritance or impaired health of the mother.

The administration of either should be intermittent—that is, it should be used, say for a month, and abandoned for a month, then resumed and again abandoned, and so on.

Imperfectly as this subject has been presented, it should arouse the attention of the profession to the importance of urging upon all our patients, who are about to become mothers, the great necessity and the duty of their using every means within their reach that is likely to tend toward improving the teeth of their offspring, and to this end dentists should ask the coöperation of the family physician, and of the husband, which will be readily and gladly accorded when once its importance is apparent to them.

The younger members of the profession should give this subject their serious consideration, for the amount of good they may accomplish by making one of the cardinal principles of their practice the urging of this pre-natal care upon their patients can never be fully estimated, while the laurels they may win in establishing successful prophylactic treatment will be those they may well be proud to wear.

STATEMENT OF MORTALITY FROM BUREAU OF VITAL STATISTICS FOR SEPTEMBER gives the monthly death rate as 1.73 per 1,000. Total deaths, 970. Total deaths in August, 1,163. September, 1882, 1,032. September, 1881, 1,211. Greatest number of deaths from diarrhoeal diseases, 143; diphtheria, 45; scarlatina, 36; typhoid fever, 44; croup, 17; typho malarial, 12; phthisis pulmonalis, 94; acute lung diseases, 72; pertussis, 12; cerebral meningitis, 23; Bright's disease, 9; inanition, 22.

Domestic Correspondence.

ARTICLE IV.

CINCINNATI, Nov. 6, 1883.

MR. EDITOR :

Cincinnati, the Queen of the West, the City of Music, the city containing more Germans to the square mile than any other spot outside of the Fatherland, and more dirt than any other city outside of Pittsburgh ; the city of Graham, Drake, Blackburn, Longworth, the Musseys—illustrious father and devoted son—and Bartholow, is sometimes thought to be jealous of Chicago ; but she is not. She looks with pride and wonder upon her overgrown younger sister, remembering well when one of her solid citizens could have bought the village on the lake.

Cincinnati has, according to the directory for 1883, 463 doctors, regular, irregular, and defective. Many of these are practicing pharmacy, others dentistry, while some have the title having taken it as a matter of education, while many are going through that trying ordeal, sitting around waiting for a practice, and others, having worried through, are simply waiting to die. The number of active practitioners, in proportion to the population, is comparatively small. It must be considered, however, that the large proportion of the midwifery work here is done by midwives, while old women and many other forms of the vulture tribe, prey on the poor practitioner.

Cincinnati has five hospitals. First, and largest, is the Cincinnati. A better building for a hospital, all things considered, the writer has not seen either in this country or Europe, unless, perhaps, St. Thomas' Hospital in London. The staff consists of

members of the Faculties of the Medical College of Ohio and of the Miami Medical College, and a number not belonging to these colleges. Its clinics are open to all students alike. It is supported by the city. Second in size, and number of its patients, is the St. Mary's Hospital. This is patronized largely by the Germans, probably 80 per cent. of the patients being of that class. It is under the charge of the Sisters of the Poor of St. Francis, and is supported by charity. Its staff consists, for the most part, of men not connected with a college but the Medical College of Ohio is represented. Third, is the Hospital of the Good Samaritan under the entire control of the Faculty of the Medical College of Ohio, its students only being admitted to the clinical lectures. Next comes the U. S. Marine Hospital, and then the Jewish Hospital. Besides, there are half a dozen private hospitals which to mention would be but to advertise.

Cincinnati has two medical colleges—the Medical College of Ohio, established in 1819, and having an average attendance of about 330 students; the Miami Medical College, the result of an un-united fracture of the Faculty of the Medical College of Ohio, which has resisted the efforts of both conservative and radical surgery. The students in attendance average about 110. There are other corporations, 'tis true, but they are irregular and defective, and it is bad enough to have them forced upon one's thoughts occasionally, without mentioning them. Besides these, we have one of the oldest dental colleges in the world, and a school of pharmacy. The Cincinnati University last summer made overtures to the College of Pharmacy proposing to absorb it, but the College of Pharmacy did not prove that kind of cotton. The University has made like overtures to the medical colleges, and met with like responses.

Cincinnati has two medical libraries; that in the Public Library being chiefly devoted to books, having the best of the American, English, French and German journals. That in the Cincinnati Hospital, though deficient in books, is rich in the journals of America and Europe.

Cincinnati has five medical societies. The Hippocratican, consisting of the ex-internes at the Cincinnati Hospital, meets annually.

The Obstetrical Society is a select body of men limited to twenty. Their meetings are "catamenial," they are a "regular" body, they "labor" hard, and the "flow" of wisdom is great. It is needless to remark that those members who have not reached the menopause are nearing it. Hæmatoma of the Vulva was one of the interesting cases reported at the last meeting by Dr. W. H. Wenning.

The Drake Medical Society, organized only last spring, is the youngest medical society in the city. It is also select. Its members number but fifteen, are the young members of the profession, and are all graduates of the Medical College of Ohio, and were in college at the same time. They meet at each others' offices, and are economical; they have to be. Interesting papers at recent meetings were: "The Use of Opium in the Diseases of Children," Louis Schwab, M.D.; "Otitis Media Purulenta," Chas. W. Tangeman, M.D.; "Gonorrhœa," W. H. Kelley, M.D.; "Ovariectomy," Chas. T. Locke, M.D. E. W. Mitchell, M.D., President; Geo. A. Fackler, M.D., Secretary. Meets every Tuesday evening.

The Cincinnati Medical Society, a fragment of the previously mentioned un-united fracture, meets every Tuesday night. Recent interesting papers were: "Scurvy," J. E. Eichberg, M.D.; "Locomotor Ataxia," Philip Zenner, M.D.; "Scarlatinal Rheumatism," W. H. Taylor, M.D. B. P. Goode, M.D., President; W. H. McReynolds, M.D., Secretary.

Cincinnati Academy of Medicine, established 1857, meets every Monday night. Interesting papers have been read recently on: "Color Blindness," Julia W. Carpenter, M.D.; "Cephalhæmatoma," with report of a case of the intra-cranial variety, E. S. McKee, M.D.; "The Despotism of Words in Science," Orpheus Everts, M.D. Cases of hæmorrhage from the bowels were reported by J. T. Whittaker, M.D.; cases pertaining to surgical treatment of pleuritic effusions were reported by Drs. Ransohoff, Whittaker, Jones, Krause and Mitchell; a case of "Abdominal Tumor," by James T. Whittaker, M.D., and Joseph Ransohoff, M.D. W. W. Seely, M.D., Dean of the Medical College of Ohio, is President, and W. H. Wenning, M.D., of the St.

Mary's Hospital, is Secretary. Short-hand reports are taken in full and printed.

Cincinnati has three medical journals—one weekly and one monthly, both devoted to general medicine and surgery; the other, a monthly, devoted to obstetrics and diseases of women and children.

The health of Cincinnati during the past summer and autumn has been marvelous. The week ending October 27, 1883, reported only 68 deaths, or 12.66 per 1,000, the lowest for ten years. The weekly death-rate has been below 100 all summer. This is bad for the doctors, for there has been a corresponding small amount of sickness, but for the undertakers it has been terrible. The poor fellows have been compelled to add on 50 per cent. to their charges, to keep up appearances.

In June the Legislature abolished the Health Board of Cincinnati, in answer to a petition from her citizens, and ordered an appointment by the judges of the Superior court. This, said judges refused to do, and the city was two months without health board or officer. Common Council then took the matter in hand, and elected another Health Board, which has been serving since August 1. It filled out the appointments, and so far seems to have disappointed everybody by doing its duty. District physicians, so-styled assistant health officers, were appointed, one for each ward, twenty-five in all, at a salary of \$25.00 each per month. They are expected to look after the sanitary condition of the ward and doctor the sick poor. The city is entirely free from small-pox, and has been for one month past. Small-pox here makes sad havoc at times in the German quarters, as they number many anti-vaccinationists. The Health Officer has been struggling with the dessicating companies, the so-called "stink" factories, but he always comes off second. Money is a powerful power.

A pusillanimous penny sheet here has for the past two weeks been dosing out the doctors a half dozen each issue. It pretends to give a biographical sketch. Gives the age, height, weight, color of his hair, whiskers, eyes, etc., his manner of dress, of visiting his patients, his habits, and views on tobacco, temperance and religion. His residence and office, place of graduation, how

long in practice and how much his practice was worth. As to the latter point many were the untruths told; doctors whose practice hardly paid their office rent were down for \$7,000 per annum, while another who is known to make visits for fifty cents was put down for \$15,000 to \$18,000. Every article had some attempt at wit, such as "a strawberry blonde," "whiskers of a crushed strawberry hue," "somewhat of a dude in his dress," etc., etc. Of course the whole thing was disgusting. Some doctors were written up, from no fault of theirs, the reporter having either obtained his points from other parties or from observation and imagination; others, of course, pushed their way in and were happy over a little cheap notoriety. The whole matter goes to show the greatest failing of the medical profession, viz. to exaggerate the amount of their income. It creates wrong impressions among the laity, causing them to think every doctor rolling in wealth, which is not the case. Then, too, it has the effect of making bills harder to collect, and every one knows now they are difficult enough.

Sir William MacCormac, I see, has been at Chicago, and the defendant at a reception at the Grand Pacific. Sir William visited also St. Louis and Louisville but evaded Cincinnati. Possibly it was because Cincinnati's great lights were not persistent enough in their inducements. Sir William is an elegant fellow and deserves great praise for the exceptional manner in which he conducted the International Medical Congress of '81; possibly he deserves the, in England, great honor of the Knighthood, but, we think, not half so much as that indefatigable and life-long worker in the profession, the unassuming, in England unexcelled, Johnathan Hutchinson. Who of the profession haven't for years heard the name of Johnathan Hutchinson on the lips of their brethren and seen it cut in the teeth of their patients? Who ever heard of Sir William MacCormac before the Congress of '81?

There has, for two months past, been a controversy going on in Cincinnati between the physicians and druggists. Complaints were made first in the Academy of Medicine early in September that many of the druggists were prescribing, that they were treating more gonorrhœa than the physicians; that they dis-

played too prominently the advertisements of quacks and their nostrums; that they in many instances sent medicine, ordered by physicians, wrapped up in quack medicine advertisements; that they substituted; that they refilled prescriptions too freely; that they advised patients of one doctor to discontinue him, recommending another; that in one instance one spoke disparagingly of medicine ordered by a physician, saying he had "a clapp mixture which beat that all to pieces;" that two were advertising their gonorrhoea mixtures in the daily papers, etc., etc.

A committee was appointed to confer with like committees from the Cincinnati Medical Society and the College of Pharmacy.

The druggists filed counter claims that the physicians were in some instances dispensing their own medicine and that they were prescribing proprietary and secret remedies.

After considerable discussion among the committees the following rules have been drawn up:

I. That pharmacists shall not prescribe medicines.

II. Pharmacists shall not too frequently fill prescriptions which might lead to disease or vicious habits.

III. Pharmacists shall only supply medicines on prescriptions, or where the complaint is stated by the customer to be one dangerous to life.

IV. The right to refill the prescriptions when presented by the person to whom they were issued by the physician is acknowledged.

V. Physicians should not dispense medicines except in cases of emergency, nor prescribe proprietary, secret or copyrighted medicines.

VI. The prescription when in the hands of the pharmacist and filled, shall be the latter's property, as they may be necessary for protection.

VII. The use of prescription blanks by physicians with the address of any individual pharmacist on them is liable to misconstruction and shall be discontinued.

VIII. The evils arising from the wholesale use of patent medicines is recognized and their use discountenanced.

IX. A Board of Arbitration, consisting of five physicians

and five druggists, shall be appointed, who shall subscribe to these rules. This Board shall hear all complaints against any subscriber to these rules for their violation and shall decide the disputes.

The disagreeable part of this is that the daily press has been writing us up for several days and making more out of it than any one else.

Respectfully,

ABRACADABRA.

MOLLUSCUM SIMPLEX IN THE LABIUM MAJUS.

A girl perfectly healthy, twenty-one years of age, noticed a swelling on the genital parts two years ago, but since eight months the tumor grew rapidly. Three weeks ago while rubbing the tumor the latter burst and there was a great deal of hæmorrhage. The tumor is pedunculated and the pedicle is inserted on the labium majus of the left side. The insertion is linear, and extends on the whole length of the labium majus. Its height is that of the lip and its external surface corresponds with that of the labium majus. The external appearance of the pedicle is exactly that of the labia. The body of the tumor consists of a certain number of lobules some being large, others adjoining these being small, and there are yet others which are placed like parasites on the other. The whole form resembles a grape. The epithelium of all the lobules is that of the genital parts, but there is between the lobes an erosion from which flows a bloody liquid. The lobes are in the form of a sac and resemble false hæmorrhoids. The removal of the tumor was executed without loss of blood.—*Le Progrès Médical*.

Society Reports.

ARTICLE V.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society inaugurated the approaching winter sessions or series of meetings on the evening of the 15th inst., after a vacation of two months, and it is hoped the lively interest will be continued as that evinced by the large attendance of members at this time, and the *jeu d'esprit* present will be productive of many valuable and interesting papers and essays ere the close of the current year.

The President, Dr. D. W. Graham, gave a short address of welcome in the most appropriate manner, and Dr. L. H. Montgomery recorded the minutes.

The first paper was an extensive one, being "The History of Insanity in Chicago," compiled from an analysis of three thousand cases treated at the County Insane Asylum during the past twenty years, by Dr. S. V. Clevenger, special pathologist Cook County Insane Asylum. The following synopsis is hereby appended:

Many things have interposed to baffle his endeavors to present an exact history of the medical progress of this asylum, giving statistical information, etc.; for during the time prior to the great Chicago fire, which destroyed all the county records, and the paucity of asylum papers dating earlier than 1878, the asylum books were kept in a very careless manner, blotted, smeared and full of errors. At this time the superintendent assuming charge had transferred to new pages all the case histories obtainable from previous records and the fuller details obtained from friends of patients. This mass of information has

afforded the material for this article, but in analyzing cases earlier than 1878 many sources of error must be eliminated before they can be made available statistically. In *ante bellum* days there was no county asylum; at that time and during the year 1866 insane persons were treated in the wards of the Poor-House, also subsequently and during the period from October 1, 1867, to January 10, 1871. Some very comical stories are told of this *regime*, from which the writer deduced that the welfare of a patient was insignificant alongside the chances of stealing a dollar or so, in those times. January 1, 1871, the Poor-House had outgrown itself, and the necessity for differentiating insanity from pauperism had become apparent enough to justify the erection of a large brick building capable of accommodating 300 patients. A new superintendent was appointed who started out with true medical *animus* to better the condition of the insane, but the book keeping and records were not satisfactorily kept. January 1, 1875, a change was made in the appointment of superintendent who served until January 1, 1878, at which time the present incumbent's term began, and who served uninterruptedly to the present time. The writer of the paper had incorporated some sixteen different tables, showing the number of admissions each year (male and female), recoveries, improved, sent to State Hospital, died, unknown, also the duration of residence in asylum of male and female patients, occupation, nativity, maximum per cent. minimum per cent. and mean per cent. of those who recovered, improved each year, etc., and lastly a table showing the psychoses of patients admitted during the fiscal year ending August 31, 1883 (re-admissions included), which to elaborate upon without giving the figures complete might do the author an injustice. Suffice to say that in comparing the figures to some writers in medical journals, there is much unnecessary cavil at the term "recovered," as used by asylum statisticians.

One reason for this probably is that where 100 cannot be obtained in footing up any table requiring it, differently based calculations without all the factors will require additional study and greater chance of error.

The author quoted figures of the California asylum at Napa, showing the increase of insanity in that State, from 1 to every

833 persons in 1860, to 1 in 383 in 1880, and that in this proportion there will be one insane person to two sane in the year 2000 in that State. However, this apparent resulting increase occurs in all new countries. Just so it is with the Chicago insane, the proportion of whom to the population is somewhere in the neighborhood of the California figures of 1880 (1 to 383), as there is a great influx of paupers from Europe, "assisted" by the English government, into Chicago. The statistics of the Kankakee and Elgin asylums, so far as they relate to Chicago insane, should form an integral part of future estimates, in connection with our county asylum, in arriving at an idea of the proportion of insane in our city population, with their death and recovery rates.

Several hypertrophied brains and hearts were exhibited, one heart that of a woman, weighing twenty-four ounces; also, a brain weighing fifty-seven ounces, of a Swedish physician, the "pons" portion being unusually developed. The man had been remarkably intelligent during a portion of his life.

Dr. J. G. Kiernan reported a case of "Insanity from Using Quinine," this being the third one that he has observed during the past two years. The two previous cases were reported two years ago in the *Journal of Nervous and Mental Diseases*, 1881. The case to-night is R. B., æt. 38; has a sister epileptic; a maternal grandmother and a maternal aunt died from "rush of blood to the head." The patient resembles the maternal side of the house in appearance and disposition. He has never been able to take even a small quantity of beer, for fear of it affecting his head. Having recently come from a malarious district into Chicago, he was attacked by fever of a quotidian type. Upon the advice of a fellow workman he purchased and took $\mathfrak{D}$ i. of quinine sulphate at a dose. In an hour thereafter he was violent and destructive, smashing furniture purposely. His friends called the doctor at this stage. There was a wild, purposeless violence, but no delusion or hallucination present. He was very incoherent and hilarious. This condition disappeared in two hours, he having meanwhile been given a hypodermic of conine, which controlled his movements. A second dose of the quinine led to exactly the same results, and its astrological influ-

ence was, therefore, clear. Since disuse of the quinine there has been no further psychical phenomena. The writer knew of but one other case in literature of transitory fury due to quinine. Such cases as these are likely to become of medico-legal importance. He had, however, heard of three instances in which the use of quinine has been alleged as an excuse for certain escapades seemingly the result of intoxication.

Dr. Clevenger inquired of Dr. K. if there was present any predisposing or exciting causes in all his cases. Answered, all the cases had a hereditary or neurotic taint. He then quoted from Wood, who said in 3,000 cases where quinine was administered the heart's action in three of them became depressed, similar to the action of salicylic acid in some cases.

Dr. R. H. Engert had always found that quinine acted as a tonic to the heart, but recited a case where a man in Mississippi had taken a large dose, became delirious from its effects, and died.

Dr. E. Andrews offered the following resolutions, which were adopted :

That the chair appoint a committee of five, of which the president shall be chairman ; that this committee is hereby instructed to confer with the commissioners of the public library, on the subject of increasing the medical department of that library, and endeavor to agree with the commissioners upon a plan of action, and to report the same to this society for ratification.

That this plan shall, if possible, embrace the following features :

1. That the surplus funds now in the treasury of this society shall be appropriated to the purchase of medical and surgical books and journals for the Public Library.

2. That a certain proportion of the annual dues hereafter shall go for the same object, together with such voluntary donations as the Library Committee hereafter to be appointed may succeed in determining.

3. That the Commissioners of the Public Library shall take good care of the works purchased, and add a suitable sum yearly to be applied to the same objects.

4. That this society will claim no exclusive use of the medical books and journals, but we desire that they shall be placed

in the consultation department, and not in the loanable list.

Resulting in the following appointments:

Drs. D. W. Graham, Edmund Andrews, Oscar C. DeWolf,
G. C. Paoli, E. Ingals, Committee.

The Society adjourned.

L. H. M.

CHICAGO PATHOLOGICAL SOCIETY. Regular meeting October 8, 1883.

The society was called to order by the President, Dr. Angear.

The minutes of the August and September meetings were read and approved.

Dr. Fannie Dickinson was elected to membership.

Dr. F. C. Knight was proposed for membership by Dr. G. F. Lydston and the Secretary.

The society then listened to the reading of a very interesting paper by Dr. H. M. Lyman on Apoplexy, in illustration of which the author gave a detailed history of numerous interesting cases.

In diagnosis, one needs to exercise careful judgment. Alcoholic intoxication and an apoplectic seizure may co-exist. Hysterical women have fallen in an attack of unconsciousness, with resulting hemiplegia, which, in a short time, may be transferred to the other side of the body. Apoplexy may be simulated by uræmic poisoning.

In apoplexy the temperature first falls, then rises.

In treating the worst cases, nothing is of avail; in those milder, we may employ leeches, wet cups, general bleeding only when the right heart is involved. Attention should be directed to the state of the bladder, and the bowels be kept open.

For medication give moderate doses chlorate of potassium, and watch its action upon the kidneys; and tincture aconite root.

In the stages of convalescence, dietetic general treatment, electricity and massage.

The paper being before the society for discussion, the President, Dr. Angear, remarked his interest in the paper and its subject-matter. To the profession the diagnosis is all important, and in some cases, when so diagnosed, apoplexy had not occurred.

He had not a large experience, but a case seen years ago would bear relating in which a lady suffering from headache, reflex pains, pain in the left shoulder and arm, had been treated for uterine disease, and was suddenly seized with apoplexy, and death, the post-mortem revealing this condition. The disease of the brain is partly revealed by these obscure symptoms, disturbances of the mucous membrane, as well as interference in the nutrition of the skin, on account of which bed-sores form quickly. Fatal syncope is often diagnosed as apoplexy. The diagnosis should be carefully studied.

In another case, when hastily summoned, found a man speechless, hemiplegic, the eye natural, and sense unclouded, which condition was quickly relieved by an emetic and the throwing up of a large amount of undigested food. Had death occurred the diagnosis would probably have been made of apoplexy, and that of the nervous variety may have really existed.

A member of the County Hospital Staff present, then spoke of a case of medico-legal interest seen lately. The patient was in coma-hemiplegic, with all symptoms of apoplexy, and had been picked up in this condition in the street. No signs of foul play were noticed; remained thus 48 hours, then died; post-mortem examination revealed a large blood clot upon the left lobe of the brain and a fracture of the skull through the left parietal to the temporal bone. No bruises were visible on the scalp. The cause of the fracture may have been a blow from a sand-bag.

Dr. C. J. Lewis thought Dr. Lyman had given all the points to bear in mind in diagnosis, and briefly related a case of a man whose skull was fractured by a fall in leaping from a window. The symptoms were of apoplexy, hemiplegia, etc. In trephining there was found extensive vascular rupture producing great pressure, although there was but slight pressure from the bone.

Dr. Tibbets briefly spoke of two recent cases, after which the society proceeded to consideration of miscellaneous business.

The President remarking that as there might be some complaint made during the winter on account of the present location of the society being insufficiently central, and as the present place of

meeting had been secured experimentally only, suggested the advisability of discussing the matter.

Dr. Lyman moved that the officers of the society be appointed a committee to look up a suitable hall or other convenient place for the society and report at the next meeting. Carried. Dr. Lyman's name was, on motion, added to the above committee.

Among those present were Drs. Angear, Beecher, Dobbin, Harper, Lewis, Lyman, Treat, Tebbetts and several visitors.

The society, on motion, adjourned.

J. H. TEBBETTS,
Secretary.

MICHIGAN STATE BOARD OF HEALTH. Reported for the CHICAGO MEDICAL JOURNAL AND EXAMINER.

The regular meeting of the State Board of Health was held October 9, 1883, at its office in the Capitol at Lansing, the following members being present: Arthur Hazlewood, M.D., of Grand Rapids; C. V. Tyler, M.D., of Bay City; J. H. Kellogg, M.D., of Battle Creek; and Henry B. Baker, M.D., Secretary.

The Secretary presented his annual report of property, showing valuable accessions to the Library of the Board by gifts and exchanges; also his quarterly report of work done in the office, the regular correspondence alone, exclusive of many postal card communications not copied, making 572 pages of the letter-book record.

From week to week, as magazines and other accessions to the library are received, considerable work is necessary to make references by which, at any time, papers on a given subject may be found; also to look up papers on various subjects, and to pack and ship books, etc., to those who undertake to write papers for sanitary conventions, or other uses. During the past quarter, three such requests for books and papers have been filled.

A letter from Dr. Whelan, on behalf of the common council of Hillsdale, invited the Board to hold a sanitary convention in that city. The invitation was accepted, the convention to be held at such time as shall be agreed upon hereafter. A letter was read from Rev. J. Pierson, D.D., of Ionia, relating to holding a

sanitary convention in that city. It was decided to hold one in Ionia, if practicable, early in December.

A communication from Hon. C. A. Gower, requesting this Board to examine plans for a proposed new building at the State Reform School, was received and acted upon.

A communication was read from Dr. Isler, of the Upper Peninsula, requesting that the documents issued by this Board on the prevention of contagious diseases, be translated and published in the Scandinavian and Finnish languages, for the use of miners and others who do not read English, and among whom both scarlet fever and diphtheria are now present. The leaflet on communicable diseases (No. 47) was ordered to be translated and published in the Scandinavian, French, and Polish languages.

Announcement of the meeting of the American Public Health Association was made, and it was voted to hold a meeting of the Board in Detroit November 18, to attend the meeting of the Association, and to transact such business as may come before the Board.

A communication from the chairman of the Ontario Provincial Board of Health gave notice of a sanitary convention at London, Ontario, November 16 and 17. Drs. Baker and Hazlewood were appointed to attend this convention.

The Secretary was directed to procure from the county clerks, for the uses of the Board, a list of the physicians in the several counties, and their postoffice addresses if practicable.

A memorial was read from the citizens of Morley, Mecosta county, relative to the throwing of dust and other refuse into a stream, a subject not controlled by the State Board, but by the courts. The memorialists had been so informed by the Secretary.

The Secretary presented a *résumé* of the work of other boards of health.

The Boston, Mass., Board of Health has lately placed measles on its list of diseases to be reported to the Board by householders and physicians. That Board has publicly offered to superintend the process of disinfection, if requested so to do by the householder. Dr. Kellogg thought it desirable that boards of health superintend disinfection after contagious diseases, where possible.

He thought disinfection by sulphur would be more efficacious, if carried on in a moist atmosphere.

Drs. Hazlewood and Baker were appointed a committee to examine and report on text-books on hygiene with especial reference to alcohol, if any such books are sent to the Board for examination.

Dr. Kellogg, for himself and Dr. Avery, special committee on the present knowledge respecting diphtheria, reported a paper embodying a large number of replies to a circular of inquiry, some being very valuable. The report was accepted with thanks, and ordered printed in the annual report.

The next meeting of the Board will probably be for the examination of plans for buildings at the State Reform School.

REPORT OF FRED. H. WINES, SECRETARY, TO THE ILLINOIS STATE BOARD OF PUBLIC CHARITIES, RESPECTING THE TENTH ANNUAL SESSION OF THE NATIONAL CONFERENCE OF CHARITIES, AT LOUISVILLE, KY., SEPT. 24-28, 1883.

GENTLEMEN:—I have the honor and pleasure of making the following report of my attendance upon the annual meeting of the Conference of Charities and Correction, which was in session at Louisville from the 24th to the 28th of September. During the greater part of this time the President of the Board, Dr. J. C. Corbus, and Mr. Whipp, my assistant in the office, were also present.

In several respects this has been the most interesting and profitable meeting which we have held, thus far. At Chicago, in 1879, there were but twelve States represented; at Cleveland, sixteen; at Boston, including the District of Columbia, there were nineteen; at Wisconsin, twenty-four; but at Louisville, thirty-three. We went there in hope of securing a full representation from the States south of the Ohio river, and in this we were successful. I think, too, that these States will send delegates regularly, hereafter. The number of delegates in attendance at Louisville was unusually large; it could not have been much, if any, less than two hundred persons from outside the

bounds of Kentucky, and with the Kentuckians it probably reached three hundred. The *personnel* of the Conference was never finer than this year, nor the papers read better worth attention, nor the discussions freer from irrelevance and crudity of thought. Every moment of our time was occupied with the business of the session, which went forward rapidly and logically to its conclusion, and all who were there seemed to be satisfied with the result. From the people of Louisville and from the State officers of Kentucky we received every attention that we could have desired. I only regret that more of our own Board could not have been there.

MONDAY.

We met on Monday, in the evening, when addresses of welcome were made by Mayor Jacob, Gov. Knott and Senator Williams, which were responded to by Messrs. Sanborn, of Massachusetts, Vaux, of Pennsylvania, Mills, of North Carolina, and Knapp, of Florida.

My address, as President, was devoted to an exposition of our position and function as an organization apparently destined to exert considerable influence upon legislation and the future of charitable and correctional work in the United States.

TUESDAY.

Tuesday morning was devoted to hearing reports from the various States represented. There were so many of these, and the reports made were so unnecessarily long and minute, that the Conference was unable, during the four days that we were together, to hear from more than a part of them, but leave was given to any State not heard to file a written report for publication in the proceedings. The experience of this year led to the formation of a standing committee on Reports from States, whose duty it will be to see that reports are made in writing, and, as far as possible, placed in the hands of the committee at least one month in advance of our next meeting, so that the committee can prepare a summary of whatever is most interesting and important in them. This will not prevent the presentation of the reports separately, in addition.

We had two admirable reports on this day from the standing committees on the Work of the State Boards of Charity, by Bishop

Gillespie, and on Charity Organization in Cities, by Mr. McCulloch. Special prominence was given to the latter topic, which was discussed both in the afternoon and at night. Among those who participated in the debate were: Messrs. Putnam, of Boston, Fairchild, of New York, Walk and Garrett, of Philadelphia, Elliott and Barbour, of Detroit, Shattuck, of Cincinnati, and Mrs. Spencer, of Washington.

An interesting feature of the meeting on Tuesday was the address of Senator Vance, of North Carolina. The Conference listened with marked satisfaction, also to the addresses made by Rt. Rev. Father Bessonies, of Indiana, and Bishop Robertson, of Missouri.

WEDNESDAY.

Wednesday was given up to the consideration of the prison question. The standing committee on Crimes and Penalties reported, by its chairman, Mr. Z. R. Brockaway, Superintendent of the Reformatory at Elmira, New York, the only prison in the United States from which convicts are released on ticket-of-leave. Mr Brockaway's reputation as an able writer on this subject, as well as a most successful prison officer, is well known to you, but it seemed to me that in this report he surpassed anything which he has previously made public. The programme arranged by him for the day was very full, and included papers by Judge Young, of the Supreme Court of Minnesota, on the Reformatory Idea in Penal Treatment; by Miss Hall, of the Women's Prison, at Adrian, Michigan, on the Reformation of Criminal Girls; by Miss Mosher, formerly of the Women's Prison at Sherborne, Massachusetts, on Discipline in Prisons; by Gen. Brinkernoff, of Ohio, on what he called Post-Penitentiary Treatment of Criminals, that is to say, on police supervision of prisoners after their discharge; and by Judge Henry of the Supreme Court of Missouri, on Aid to Discharged Criminals. There was not as much time for discussion of these valuable essays as many desired. and some prison officers who were present, among whom I may mention Col. Lipscomb, of the South Carolina penitentiary, were not heard, which was the occasion of considerable regret.

Mrs. Barney, of Rhode Island, gave us a brief account of the efforts made by the Women's Christian Temperance Union to

have female matrons appointed at the central police-stations in cities.

Gov. Blackburn, of Kentucky, made an earnest and feeling speech, in which he pledged himself to devote himself for the remainder of his life to the cause of prison reform.

Other speakers were: Mr. Wilson, of Missouri, Gen. Taylor (a nephew of President Taylor), Chief of Police of the city of Louisville, Dr. Morris, of Baltimore, Dr. Cadwalader, of Philadelphia, Richard Vaux, Mrs. Cobb, of Milwaukee, Mrs. Beveridge, of Chicago, and some whose names I cannot at this moment recall.

But all will agree, I think, that the culminating point of interest was reached when, in the evening, Mr. George W. Cable, of New Orleans, the famous novelist, rose to read his carefully prepared attack upon the lessee prison system as administered at the South. For more than two hours he held his audience as if under a spell, while he quoted from the official reports of Southern prison officers and lessees, and drew from them inferences which, if they bear the test of examination, must, when they attract the notice of the Southern people, result in the abolition of the abuses which he depicted. When he took his seat, no one offered any defence of the system, but Gen. Anderson, of Kentucky, thrilled us by a fiery speech denouncing the wrongs perpetrated under it. Both Mr. Cable and Gen. Anderson were loudly applauded. It is said that Mr. Cable's article is to appear in the *North American Review*.

THURSDAY.

The Department of Justice sent a representative to the Louisville meeting—Mr. Haight, Inspector of Prisons in which United States prisoners are confined. There not having been time to hear him on Wednesday evening, he read, on Thursday morning, a brief but interesting account of the relation of the National Government to the prisoners of the country.

Dr. Bell, of Louisville, was introduced and spoke eloquently of the pleasure and advantage which our meeting had been to the people of the city and the State, and the influence which it would exert in the South.

Then followed a remarkable address by Rabbi Sonneschein,

of St. Louis, on Hebrew Charity in the Middle Ages, delivered with great animation and enthusiastically applauded, especially the happy allusions made by him to Christianity, and his definition of charity as justice, the repayment of a gift.

The report of the standing committee on Preventive Work among Children was read by the Chairman, followed by a brief report by Mr. Coffin, of Indiana, on the International Congress at Paris composed of representatives of institutions and associations interested in child-saving. Judge Ferris, of Nashville, Tennessee, gave an account of his own extraordinary success in Placing Destitute and Homeless Children in Private Families, and Judge Lewis, also of Tennessee, read a paper entitled Industrial School Work. The session was closed by a paper from Mr. Letchworth, of New York, on the Classification and Industrial Employment of Destitute and Delinquent Children.

We spent the afternoon and evening at the House of Refuge, by invitation from the managers, who provided an elegant supper. We were invited, on the same evening, to the Central Lunatic Asylum, at Anchorage, and a part of the members went there, where they were equally hospitably entertained. The House of Refuge, under the superintendence of Mr. Caldwell, has reached a high point of excellence, and perhaps has no superior in this country, in many of the most important elements of successful reformatory work. The children were all assembled in the chapel, and were talked to, Mr. Mills, of North Carolina, bearing off the honors of the occasion by his quaint remarks on "the all-important subject of tar." The evening was spent in listening to accounts of reformatory institutions in New York, Pennsylvania and Ohio, in which Messrs. Fulton, Fay, Collins, Watson, Cooley, Douglas, and others, participated. There was not nearly time enough for all who had something to say, and the officers of reformatory institutions, of whom quite a number were present, organized themselves into a section on the following day, for the completion of the discussion.

FRIDAY.

Friday was a field-day, when all that had been overlooked or postponed found place. The first topic considered was the Care of the Chronic Insane, which was treated by Dr. Wardner, of

the Illinois Southern Hospital for the Insane, at Anna. Among those who remarked on Dr. Wardner's paper were, Dr. Bryce of Alabama, and Dr. Griffin, of South Carolina.

Dr. Isaac L. Peet, the eminent principal of the New York Institution for the Deaf and Dumb, read a paper on the Education of Deaf Mutes. It happened that there were a good many teachers of the deaf present, from Ohio, Nebraska, Georgia, South Carolina, and elsewhere, and they, under the lead of Mr. Noyes, chairman of the standing committee on this subject, discussed Dr. Peet's paper. The statements of Mr. Gillespie with regard to the training of the ear by the use of the audiphone, awakened so much interest that the medical men present took it up, and Dr. Coomes, of Louisville, described a novel instrument for testing the degree of sensibility in the auditory nerve by the aid of the microphone.

Dr. Walk, chairman of the standing committee on Preventive Medical Charities, read his report, which was accompanied by a paper on First Aid to the Injured, by Mr. Pine, of New York.

The last paper read was by Dr. Dewey, of Kankakee, on Building Plans for Public Institutions, concerning which it would have been appropriate to quote the Latin proverb, *Finis coronat opus*.

At the night session we listened to several admirable farewell speeches, three of which were by gentlemen of Louisville, namely: Mr. Caldwell, Congressman Willis, and the venerable Judge Bullock, who still retains his power to charm his hearers. The customary resolutions of thanks were adopted, some items of unfinished business were attended to, and the Conference adjourned.

RESOLUTIONS ADOPTED.

In this rapid résumé of our proceedings, which has, I trust, given some idea of the extent of ground covered and the variety and sustained interest of the papers and discussions, I have purposely omitted any reference to the action of the Conference upon other questions brought to its notice.

Concerning the death of Dr. H. B. Wilbur, of Syracuse, N. Y., the following resolutions, offered by Mr. Sanborn, were adopted by a rising vote:

“Resolved, That in the death of Dr. Hervey B. Wilbur, of New York, the Conference of Charities loses one of its earliest, most active and most valued members, who in his own specialty stood foremost, and whose wide acquaintance with other specialties, made his suggestions and criticisms of the highest worth to inspire, to correct, and to continue in action those practical means of administration, upon which the success of a public charitable system depends.”

A committee was appointed to take suitable action respecting the International Penitentiary Congress, which has been called to meet next October, in the city of Rome, and brought in the following report, which was unanimously adopted :

“The Conference of Charities and Corrections, convened at Louisville, Ky., September 24-28, 1883, and representing the organized and individual charities and penal and reformatory institutions in the several States and in the District of Columbia, calls the attention of the President and Congress of the United States, and of the Governor and Legislature of each State, to the International Congress to convene at Rome, in Europe, October 15, 1884, and urges upon each the importance to this country, to our institutions, and to humanity, of a suitable presentation of these States in that International Prison Congress.

“An American philanthropist, the late Dr. E. C. Wines, organized and put into action the International Prison Congress, and he took an active part in its meetings in London, in 1872, and again in Stockholm, in 1878, as Commissioner under appointment, and this country and Europe are reaping benefits resulting from the able and enlightened discussions at these meetings. Many important questions of criminal jurisprudence, of prison discipline, and of preventive measures will be before that Prison Congress for discussion and solution, and the United States, having institutions the most free, humane, enlightened and progressive of any in the world, cannot afford to withhold their aid or be absent from a congress dealing with such questions. Therefore this Conference of Charities and Corrections respectfully asks that Congress take due action to send to that coming meeting of the International Prison Congress three representatives, each from a different part of the country, to take part in its discussions

and deliberations, and to bring to the United States the advanced wisdom and best results of its labors."

M. D. FOLLETT,
W. G. BULLOCK,
JNO. W. HENRY,
A. H. YOUNG,
Z. R. BROCKWAY.

Mr. Letchworth offered the following, which were also adopted :

"Resolved, by the National Convention of Charities and Corrections of the United States, That T. B. Ll. Baker, Esq., of Hardwicke Court, Gloucester, England, be invited to visit this country and attend the annual session of the Conference next year in the city of St. Louis.

"Resolved, That this action is not only an expression of our desire, but a recognition of the influence which Mr. Baker has had in molding, by his writings, and by his correspondence, the views of the Conference upon the important subjects which have come before us for our consideration."

ORGANIZATION.

St. Louis was chosen as the place of next meeting. Mr. Letchworth, of New York, was elected president for the ensuing year, and Bishop Robertson, of Missouri, vice president. Some changes were made in the list of corresponding secretaries, which was very much enlarged. Mr. Wright, of Wisconsin, retains his place as recording secretary; Mr. Milligan, of Pennsylvania, is promoted to be honorary secretary, in place of Mr. Sanborn; and the regular secretaries chosen are Dr. Hoyt, of New York, Mr. Caldwell, of Kentucky, and Mr. Hart, of Minnesota. The new standing committees and their chairmen are as follows :

On Reports from States: Fred. H. Wines, of Illinois.

On Charity Organization in Cities: C. S. Fairchild, of New York.

On the Organization and Management of Prisons and Penitentiaries: A. G. Byers, of Ohio.

On the Organization and Management of Reformatories and Houses of Refuge: A. E. Elmore, of Wisconsin.

On the Organization and Management of Poor-houses : H. H. Giles, of Wisconsin.

On Police System and Administration : F. L. Jenkins, of New York.

On Provision for the Chronic Insane : John B. Chapin, M.D., of New York.

On Provision for Idiots : Mrs. C. R. Lowell, of New York.

This is, of course, merely an outline of the proceedings, which were much more satisfactory than than they are here made to appear. I have not been able to name nearly all the speakers. It was noticeable that we had more speakers, and they spoke more briefly and to the point, than at any previous meeting, and there were but few who rose without having something of importance to say.

The excellent choir of the House of Refuge added much to our enjoyment.

Our special thanks are due to the local committee for their courtesy, forethought and aid.

With Mr. Letchworth as president, an equally good meeting, possibly a better, may be looked for at St. Louis. The time is not yet decided, but the sentiment of the members seemed to be in favor of May or June, rather than in the autumn.

All of which is respectfully submitted.

FRED. H. WINES, Secretary.

THE *St. Louis Medical and Surgical Journal* has, after late changes, the following editorial staff : Thos. Rumbold, M.D., editor and proprietor ; John B. Keber, M.D., assistant editor ; Frank M. Rumbold, business editor. Associate Editors :—H. Christopher, A.M., M.D., St. Joseph, Mo. ; Wm. C. Byrd, M.D., Quincy, Ill. A. E. Prince, M.D., Jacksonville, Ill. ; LeGrand Atwood, M.D., St. Louis.

Editorial.

THE INTERVENTION OF THE STATE IN MEDICAL AFFAIRS.

The questions which have lately been suggested touching the relations of medicine and medical men to the State, are daily acquiring more interest. They have given rise to a number of issues which at the outset could scarcely have been considered as probable results of the first laws framed with a view to the regulation of the practice of medicine. Some of these issues we have undertaken to discuss in previous numbers of this journal. The whole subject will acquire an added interest for those who take the pains to read Professor Huxley's address, lately delivered at the annual distribution of prizes at the London Hospital Medical College, and printed in the *British Medical Journal* of October 18, 1883. The name of the distinguished speaker, no less than the interest attaching to his subject—"The Intervention of the State in the Affairs of the Medical Profession"—ensures for both a respectful consideration in all English-speaking countries.

Prof. Huxley practically presents three questions: 1. Why should the State interfere with medicine and the medical profession? 2. If there be ground for such intervention, what should be its extent? 3. If such intervention be right and proper, how can it best be carried into effect? The answers which he proposes to these several inquiries, seem to us eminently wise and judicious; and some of the commentaries they suggest are interesting to us on this side of the Atlantic.

With respect to the first question, the speaker took the ground that it was not the duty of the State to take medical charge of the public, to protect it against incompetent persons in general, and

in particular against quacks and impostors. He thought that it was more wholesome for the public to take care of itself, wherever it can do so, in this as well as all other matters; and that, on the whole, there should be no interference with the liberty of each person to do that which he likes, when he does not interfere with others. The actual impossibility (which all reasonable men must admit, and of which we, in the State of Illinois, have seen the most conspicuous and notorious examples) of absolutely prohibiting the practice of medicine by people not specially qualified for it, is freely admitted by Professor Huxley. The old lady who orders a cranberry poultice, the druggist who undertakes to relieve the pain of an aching tooth or of any other afflicted organ of the body, will enjoy these peculiar pastimes in the face of all legal restrictions. The charlatan will do no less, and always more. *Facilis descensus Averni*. He has smiled equally at the British, Gallic and Teutonic barriers erected to bar his progress. Where there is a throne, there will always be a pretender. The shadow will always follow the substance. We shall always have him with us. Whether the truth or its counterfeit shall prevail, is determined not by a national legislature, but by the extent of the diffusion of knowledge among the people whose feeblest index that legislature often is.

Professor Huxley, however, strikes the key-note of the whole question when he points to the death of the individual citizen as the important moment which the State should officially recognize. Here the volition of the individual ceases. In civil and criminal causes, the law should be able to have recourse to persons qualified to give expert evidence. Here lies the justification of the intervention of the State. It says to one class of men, "Practice medicine, if you like, on any basis, on any theory, whether you are qualified or not qualified;" and, to another class, "Consult whom you choose, pay whom you will for attendance upon you in your illnesses; but before I can receive from you a certificate of death, before I can appoint any of you to my civil or military service, the standard of my qualifications must be attained. The giver of the certificate, the incumbent of the office, must be those whom I can recognize as fit for such service." In brief, the State intervenes only at those points where the

State touches the individual. With the old woman's elder-flower tea, with the druggist's cough panacea, with the quack's startling announcement of the discovery of the cure of consumption, the State has no more to do than with the numerous patent religious enterprises of the day in which we live.

Justifying, on this admission of its necessity, the intervention of the State to this extent in medical matters, the speaker went on to briefly describe the ancient sources of the license to practice in his country, including the universities, guilds, corporations, and even the Archbishop of Canterbury, who has lately retired from the business. The year 1858, the date of the Medical Act, barely twenty-five years ago, was the relatively recent beginning of the present improved condition of affairs. We, of this country, looking upon the praiseworthy condition of the standards of medical education in Great Britain cannot certainly ascribe all their excellence to the changes effected in the licensing bodies by the Act of 1858. We cannot but be sure that the average British practitioner of to-day is of the quality that he is, not because of the improvements since 1858, but in the face of the "fine old crusted abuses" and of the caricatures of a respectable source of power and authority, which existed before that year.

Certain admissions here made by the distinguished speaker are very significant. He says, speaking of the condition of affairs, not then but now: "Unfortunately, it is equally certain that there remain two or three black sheep — licensing bodies which simply trade upon their privilege, and sell the cheapest wares that they, for shame's sake, can supply to the bidder." Here is a remarkable admission from the lips of one who knows of what he speaks, and who speaks with authority. No news indeed for Americans well informed as to medical matters in Great Britain! It is an admission which should afford us neither satisfaction nor encouragement. Still, as a matter of fact, it teaches us in a most unmistakable manner, that in that country where the State does visibly and powerfully interfere in medical affairs, the same great field is left vacant where, as in this country, avarice on the one hand and ignorance on the other, can set up their unscrupulous mart and indulge in their disgraceful traffic!

Nor is this all. Professor Huxley goes on to show that there is another defect in the existing system, as a result of which the licensing power may authorize practice on the basis of an acquaintance with either medicine or surgery alone. The surgeon, for example, totally unacquainted with either medicine or midwifery, may be thus accredited to the public, and successfully embark upon the deep of pecuniary profit with a miserably inadequate professional outfit.

The report of the commission having in view the correction of these obvious defects, is characterized by Professor Huxley as an "elaborate, complex, and rather clumsy contrivance, of superseding a number of institutions which up to this time have done their work exceedingly well and are doing it better every day." He proceeds to deprecate any interference with vested interests, or with the prestige of institutions which have been and still are extremely valuable. The admirable way in which these have done their work, has wrought an effect which has been on several occasions described by ourselves, as the natural result of the forces which operate in this field when they are untrammelled by law. The speaker proceeded to show that henceforward, as heretofore, students would throng to obtain their qualification of those corporate bodies which had acquired a great and noble prestige; while those who had neglected their duties and "in one or two cases had actually disgraced themselves, would sink into oblivion and come to a happy euthanasia, in which their misdeeds and themselves would be entirely forgotten." We should seek in vain to describe more aptly the condition of affairs in this State, where the institutions of medical learning, which were in existence and had acquired an honorable prestige before the establishment and intervention of a State law touching their affairs, are to-day still existing, still adding to their prestige, still honorably discharging their high functions, not because of the law, but in the face of a law which, in certain particulars at least, has worked toward the limitation of their power.

Referring to the question of preliminary education and preliminary examination of students, previous to the four years' curriculum in medicine, we are scarcely surprised to hear the lecturer say, that the young Briton presents himself, in all prob-

ability absolutely ignorant of the existence of science, having never heard of chemistry or of physics, and without the smallest conception of the outlines of pathological research. The remedy proposed for this condition of affairs, is not what many of the ardent advocates of reform in the standards of American medical education would either suggest or advocate. It is not to make the examination more rigorous, to exclude a larger number of applicants, to reject a larger number of those who are determined in their minds, either by the nobler and better or by the cheaper and meaner avenues, to enter the medical profession. Professor Huxley is indeed sorry to believe that the general education examination is "entirely futile." His plan is, admitting it to be practically hopeless to extend the period of professional study beyond the twenty-second year, to prolong the course, as it were, backward. After the sixteenth or the seventeenth year of life, the time might be usefully employed, not in an education preliminary to the study of medicine, but as a matter of fact in that study itself. Thus, elementary physics, chemistry, biology, anatomy, physiology, physiological chemistry, and physiological physics might be then profitably studied, going over a field which has become so large that it is utterly impossible that any man in it should be, under the present system, competently taught by a competent teacher.

Professor Huxley's suggestion that these so-called "institutes of medicine" should be taught in the earlier period of study in one or more separate institutions; and the more practical branches later, in the medical schools of his own country, is not only practically valuable itself, but full of suggestiveness to those who are connected with American schools. The latter are multiplying yearly under the stimulus of the ambition of men anxious to become preceptors in medicine. Many of the latter reside in towns of relatively small population and inferior medical opportunities. Among existing institutions, it is needless to add that there are those of a respectable character and legitimate authority, whose situation and opportunities are greatly inferior to the standard of requirements for a medical university of high-class position. The benefits that would assuredly result from a division of labor between these several institutions, it would be diffi-

cult to exaggerate. Let those whose facilities are inferior and whose resources are inadequate, devote themselves exclusively to the preliminary instruction of students in these so-called "institutes of medicine;" and the larger schools, situated in the great metropolitan centers, with unrivaled facilities and practically unlimited clinical material, will willingly give themselves especially to the practical teaching connected with disease and injury, which is the great and pressing requirement of him who would be a practitioner of medicine. The medical degree would naturally be conferred by the latter. The realization of such a scheme, which should not be hastily pronounced either visionary or impracticable, would inure to the benefit of both classes of schools, as also of the general profession. It would prolong the period of medical study, without insisting that the faithful, painstaking, and ambitious American student should pass the best portion of his earlier manhood within the shadow of a university, without repelling from the ranks of the profession some of those well qualified by nature to enter them, and without inflicting a damage upon corporate bodies which are already, with credit to themselves and with usefulness to the world at large, improving by all the means which wealth and knowledge can command, the character and requirements of the medical college curriculum in America.

In the last issue of this JOURNAL we copied an item from the *Peoria Medical Monthly*, in which reference was made to a handbill, ostensibly issued by a person by the name of J. B. Findley, announcing that Professor J. E. Harper, of the Chicago College of Physicians and Surgeons, was about to visit Bloomfield, Iowa, and soliciting the attendance there of patients affected with disorders of the eye and ear.

We take special pleasure in saying that after a careful investigation of all the facts in this case, it has become perfectly clear, that Professor Harper is and was entirely innocent of any attempt whatever to advertise himself in this manner; that he had no collusion or sympathy with Findley in the printing and circulation of this handbill; and that he has our sympathy

since he has really suffered from the well meant but exceedingly ill directed intentions of a friend.

We are pleased to add that Professor Harper has the full esteem and confidence of the profession in this city, and can be trusted to engage in no attempts unworthy of his high reputation as a physician, observing with strict regard all the proprieties of the profession.

HYPODERMIC INJECTIONS OF ETHER IN CASES OF PNEUMONIA.

In cases of pneumonia where the disease is rapidly progressing and for the complications of it, hypodermic injections of ether have a very beneficial effect. The stimulant action is especially noticed in cases of great prostration and where the sputum cannot be ejected from the bronchial tubes. Immediately after the injection is made—the pain which the injection provokes having rapidly subsided—the respiration becomes easy, the pulse is strong and normal, and the tongue gets its natural color and is moist. In time of three minutes the exhalation of ether indicates that it has entered into the lungs, and it takes several hours before the effect is over. The natural crisis is accelerated, and the complications are avoided. The injection is made by the usual Pravay syringe, and one gramme of ether used for one injection. The effects are much quicker than with morphine, and the patient never acquires a use of it like in morphine. It should be applied only in difficult cases causing sometimes paralysis of certain groups of muscles.—*Revista Medico—Quiruraquia.*

Selections.

A LECTURE ON THE TUBERCLE-BACILLUS AND PHTHISIS. Delivered at Charing Cross Hospital by T. HENRY GREEN, M.D., F.R.C.P., Physician to the Hospital, and Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

GENTLEMEN: The discovery by Dr. Koch of the organism concerned in the production of tuberculous diseases, seems destined to exercise a more important influence upon practical medicine than has any previous outcome of pathological research. This influence is already marked, and although the discovery is but a few months old, both the profession and the public are recognizing its importance, and are actively engaged, by means of respirators and other weapons, in combating the bacillus to which Koch has introduced us. Now, gentlemen, the announcement of any new and great discovery in medical science is apt to unduly divert us from those which have preceded it; and we are, perhaps, rather liable to allow our opinions to be influenced by the new, to the exclusion of the old. This danger I cannot help thinking we are beginning to incur in connection with the tubercle-bacillus. It is not my purpose now to describe to you Koch's all-important investigations, neither to venture to criticise the inferences which have been drawn from them. In dealing with such complex pathological problems, investigations require to be repeated before the results obtained from them can receive unconditional acceptance. I shall, however, to-day, assume the truth of the proposition that tuberculous processes are infective in their nature, and are due to the presence of a specific organism—the bacillus of

Koch; and from this standpoint I wish to consider the subject more especially as it concerns pulmonary phthisis; and I shall endeavor to place before you as briefly as I can, a few considerations which appear to me to be of some practical importance in this connection.

In the first place, then, let me ask you to bear in mind what has been the tendency of pathological teaching respecting phthisis during the past few years. This is, I think, fairly represented in some propositions which I submitted to you when speaking upon this subject more than a year ago. Amongst these you will find the following: 1. The morbid processes which lead to phthisical consolidation of the lung are inflammatory in their nature; by which it is simply meant to imply that they owe their origin to some kind of injury of the pulmonary tissues. 2. The injury of the lungs which leads to phthisis is mainly inflicted through the medium of the bronchi, and consists in some condition of the respired air. 3. It becomes *increasingly probable* that this injurious influence of the respired air is due to the presence in it of *minute organisms*; although whether these organisms are specific, and whether they are themselves the causes of the phthisical process, is at present quite uncertain. 4. In most cases phthisical consolidation of the lung differs from other forms of pneumonic consolidation, inasmuch as it exercises an injurious influence upon the adjacent and distant pulmonary tissues, and thus tends to spread. To this *infective* property, which varies in degree very considerably in different cases, and under different circumstances, the progressive character of phthisical consolidation is largely due.

You see, therefore, that our previous notions of phthisis have, so to speak, prepared us for the discovery of Koch. The tubercle-bacillus is the element that was wanting to establish the truth of our pathology as far as it had gone. But Koch's investigations do much more than this; not only do they show that the infective nature of tuberculous processes is due to organisms, but they appear to prove that these organisms are specific—that tuberculosis is produced by Koch's bacillus, and originates in no other way. This is, undoubtedly, by far the most important advance that has yet been made in the pathology of those diseases. But

even now our knowledge is quite incomplete. We have yet to learn what conditions are necessary in order that the bacillus may exercise its injurious influence; for it must, I think, be admitted that something more is required than the mere presence of the organisms.

The mode by which the bacillus obtains an entrance to the lungs is undoubtedly, in all but quite exceptional cases, by means of the respired air. The sputum of phthisical patients abounds in the organisms which, as Koch has shown, retain their vitality after the sputum has dried up, and thus becomes capable of dissemination as dust in the atmosphere; they are, perhaps, also contained in the breath. The source of infection must thus be very generally present. In some situations, as in institutions set apart for the treatment of consumptives, the atmosphere must probably be impregnated with the contagium, and yet how exceedingly rare are instances in which it can be shown that the disease has been communicated. Although isolated cases of probable infection have been met with by Dr. Hermann Weber and others, the evidence of clinical experience is altogether against the contagious nature of phthisis. Notwithstanding, Koch's investigations appear to prove that it is a truly contagious, *i. e.*, communicable disease. It is, however, certainly communicable only under conditions which comparatively rarely obtain. A knowledge of the conditions which are necessary in order that the tubercle-bacillus may produce tuberculosis, is therefore what is now to be desired. We want to know the life history of the contagium. This knowledge must undoubtedly await further experimental research; but in endeavoring to obtain it, I believe we shall again do well to consider some of our old-fashioned notions of pulmonary pathology.

In considering what conditions are necessary in order that the respired bacillus may produce phthisis, I would say, in the first place, that it is probable that this result is in no way influenced by the possibility, or otherwise, of the organisms obtaining a free access to the pulmonary tissues. The bacilli are so minute that they must readily enter the alveoli, and probably also, like the particles of inhaled carbon which give rise to the normal pigmentation of the lungs, be able to penetrate the pseudo-

stomata of Klein, and thus get into the lymph-channels. We must look, therefore, to the pulmonary tissues with which the organisms come into contact. Some abnormal condition of the lung would appear to be a necessary factor in the process. Here there are, I think, two well known elements in the pathology of phthisis, a consideration of which will help us in our inquiry—I mean the apical distribution of the pulmonary lesion, and the influence of inherited predisposition.

The apical distribution of the pulmonary lesion would appear alone to be sufficient to show that something more is necessary than the mere presence of the organisms. The causes of this distribution are, as you are aware, to be sought for in the diminished range of respiratory movement which obtains in the highest portions of the lungs. As the result of this diminished movement there is, in certain conditions of health, a tendency to stagnation of the blood-stream in the pulmonary capillaries. The stagnation of the circulation leads to more or less injury of the walls of the pulmonary vessels; the injured vessels are no longer capable of completely retaining the elements of the blood, and the slight leakage thus induced favors active changes in the alvcolar epithelium. We have, therefore, in certain individuals, and under certain circumstances, this tendency to slight congestion and inflammation in the highest portions of the lungs; and this tendency appears not only to determine the apical distribution of the pulmonary consolidation, but its outcome—the presence of inflammatory products, however small in amount, *probably* furnishes one of the conditions necessary in order that the bacilli may cause phthisical disease.

The influence of inherited predisposition is so marked, that its consideration must necessarily occupy a prominent place in any study of the pathology of phthisis. As to the nature of what is transmitted—although, accepting Koch's conclusions, this may be in quite exceptional cases a specific organism or virus, as in the case of syphilis—speaking generally, it is in all probability simply a tendency to disease. Without discussing this subject it may, I believe, be said that the tendency consists in some feebleness of the constitution in general, and often of the lungs and other organs in particular. As a result of this feebleness there

is usually a want of constitutional vigor; the power of resisting injurious influences is diminished, and the lungs, and often other organs and tissues, which are especially weak, are, as a consequence, abnormally liable to become inflamed. Further—this inherited weakness not only renders certain organs abnormally liable to inflammation, but also abnormally incapable of recovering from the effects of the inflammatory process; and thus there is more or less tendency to a retention and accumulation of the inflammatory products in the affected area. This tendency to accumulation and infiltration is, as you know, the most important histological characteristic of scrofulous inflammations.

You see, therefore, that the result of any inherited tendency to phthisis must necessarily be to favor the occurrence of those congestive and inflammatory conditions in the apices of the lungs, the existence of which, as we have said, probably constitutes an important factor in the pathological history of the bacillus. General feebleness and want of vigor lead to loss of muscular strength and weakness of the heart, and thus tend to prevent the full expansion of the chest, to cause a stooping posture of the body, and to impair the force of the circulation—all conditions favoring blood-stagnation in the highest portions of the lungs. Further, the toneless condition of the blood-vessels and the poverty of the blood with which the constitutional feebleness is so often associated, furnish the conditions which are the most favorable to transudation.

Lastly, in connection with this part of our subject I must ask you to bear in mind that all important factor in the pathology of phthisis—the state of the general health. Quite apart from any inherited constitutional feebleness there can be no doubt that an impaired state of health very greatly favors the development of the disease. This fact gives additional support to the view we have been taking, inasmuch as any acquired weakness must necessarily play the same rôle in the causation of apical stagnation and exudation as the inherited feebleness to which we have alluded. It is when the two are associated, as they so frequently are, that we have the conditions most favorable to the development of the disease.

We are now in a position to return to our original question—

what conditions are necessary in order that the respired bacillus may produce phthisis? It seems *probable*, I think, from this brief survey of our old pathology that one of these conditions, at all events, is the presence of some inflammatory products within the pulmonary alveoli. Whether such products favor the growth of the organisms, or whether the presence of the organisms leads to the development of some infective substance in the products, I shall not attempt to discuss. The answer to such and many other questions must, as I have stated, await further investigation. I would, however, here remark on the fact that it is alveolar and not bronchial inflammation which especially favors the development of phthisis; and it is interesting to note in this connection that Koch's investigations show the necessity of *prolonged* contact of the bacilli in order to produce tuberculosis. Such prolonged contact is obviously much more likely to occur in the air-vesicles than in the bronchial tubes.

It appears, therefore, from the present position of our knowledge respecting the pathology of phthisis—accepting the truth of Koch's investigations—that two conditions, at all events, are necessary in order to produce the disease: the presence of the tubercle bacillus, and some abnormal state of the pulmonary tissue with which it comes into contact—an abnormal state obtaining in the very great majority of cases in the highest portions of the lungs, and probably depending, for the most part, upon inherited or acquired constitutional feebleness. Such being the case, we have now to consider how far this teaching ought to influence us in our practice. To what extent is Koch's discovery likely to aid us in the diagnosis and prognosis of the disease? and, above all, what indications does it afford with reference to its treatment? The answer to such questions must necessarily await prolonged and careful clinical study. At present it is impossible to do much more than make suggestions on these heads.

Diagnosis.—The tubercle-bacillus is to be found in phthisical sputum. An examination of the spuvum may consequently prove a valuable aid to diagnosis. Thus far, the investigations of various observers appear to show that the organisms exist in all cases of this disease. This is important, as it tends to support the view which we have always taught here—that there are

no distinct pathological varieties of phthisis; that the attempts so often made to subdivide the disease have no pathological basis. When it can be shown that the bacillus is present in certain cases of phthisis whilst it is absent in others, we shall be prepared to admit the existence of more than one form of the disease.

If some abnormal condition of the pulmonary apex necessarily precede any injurious influence of the bacillus, it becomes an interesting question as to how far such a condition can clinically be recognized. Although I cannot now support my belief by any carefully recorded facts, my impression is that cases are occasionally met with in which what is probably this pretubercular stage exists. In weakly individuals, in whom there are no marked lung symptoms, and in whom an examination of the chest is made, perhaps on account of cough which is really of gastric or pharyngeal origin, a few obscure, scattered crepitant *râles*, without any signs of consolidation, are sometimes discovered at one or both apices. In the course of a few days, after tonic treatment, these signs disappear, and there is no subsequent evidence of phthisical disease. In such cases, is not the condition of the pulmonary apices closely allied to that so common in the most dependent portions of the lungs of weakly subjects confined to bed, which gives rise to that transitory crepitation heard with the first few deep inspirations?

Prognosis.—It appears that there is a definite relation between the number of bacilli and the intensity of the phthisical process, so that the examination of the sputum may afford information of much prognostic value.

Treatment.—We now come to the most important part of our subject—that of treatment. What is the practical teaching of Koch's discovery with reference to the prevention and cure of phthisis? If our pathological conclusions be even only partially true, they clearly indicate, I think, the necessity of carefully distinguishing between the bacillus and the conditions which favor its influence, and of directing our treatment to both. We must endeavor to prevent the access of the organism, and, if possible, to destroy it after it has effected an entrance; and we must also strive to maintain a healthy condition of the pulmonary tissues, and thus prevent the occurrence of that tendency to apical

stagnation which appears to be such an important, if not essential, factor in the disease. The latter of these indications is, I believe, as important as the former; and it is, perhaps, rather in danger of being lost sight of in the very natural eagerness with which attention is now being directed towards the bacillus.

Firstly, then, with regard to the condition of the lung which favors the influence of the bacillus. Here it is only necessary to remark that, whatever promotes a vigorous state of health, will, by improving the condition of the blood, the nutrition of the vessels, the activity of the circulation, and the exercise of the respiratory function, tend to prevent that stagnation and transudation in the highest portions of the lungs, the etiological importance of which we have so especially insisted upon. The value of treatment which has for its object the fulfillment of these indications in the prevention of phthisis, it is, I believe, difficult to over-estimate; and its usefulness is almost equally valuable when the disease is established. I cannot but think that, in the meantime, such treatment promises better results than any attempts to attack the specific organisms.

Secondly, the tubercle-bacillus. The consideration of this naturally divides itself under two heads: (a) the prevention of its access, and (b) attempts to destroy it when the disease is developed.

(a) The prevention of the access of the bacillus. The present position of our knowledge appears to point to the desirability of adopting measures for the disinfection and destruction of the sputa of patients suffering from phthisis; and perhaps, also, of the alvine secretions, when there is any evidence of tuberculous disease of the bowel. It also raises the question as to how far it is desirable to allow individuals who are not consumptive, but who inherit a phthisical tendency, and especially when such individuals are out of health, to *intimately* associate with those who are suffering from the disease. If our pathology continues to move on the same lines, this subject may become one requiring the consideration of those who manage our hospitals.

(b) The destruction of the bacillus after the disease is established. Attempts to do this are made principally by means of antiseptic inhalations. This is the fashionable, though perhaps

somewhat misdirected, therapeutics of the day. A respirator charged with some antiseptic, such as creosote or carbolic acid, is now being largely used in the treatment of phthisis. Although I should be very sorry to unfairly criticise such treatment, I cannot but think that the evidence that its usefulness is in any way dependent upon its destruction of the bacilli, or of any infective substance which they may originate, is wanting. It seems to me much more probable that such inhalations, when beneficial, are so mainly through the favorable influence which they exercise upon the mucous membrane and secretion; and when, as is so often the case, they are combined with chloroform, they will also act as direct sedatives. What we want are cases of early and progressive phthisis in which antiseptic treatment alone, without adjuncts, is followed by marked improvement. When it can be shown, *e.g.*, that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence pointing to the influence of the germicides upon the bacillus of considerable value. We are now making some observations in this direction, but, at present, with negative results. Whilst, therefore, I do not wish to be understood to discourage the treatment of phthisis by antiseptic inhalations, I think we must be careful as to the interpretation we put on our results. The treatment of phthisis and of other pulmonary diseases by means of a medicated atmosphere has been greatly stimulated by Koch's discovery. Such treatment has undoubtedly been too much neglected in the past, and its prosecution promises the best results. But, in the meantime, I think we have no evidence that we are able by such means to influence the tubercle bacillus; although, if Koch's investigations be true, the discovery of some agent which, by destroying it, will arrest its injurious influence, is obviously the greatest desideratum.—*British Medical Journal*.

THE FREQUENT REPETITION OF DOSES. By JOHN W. MARTIN,
M.D., M.Ch., Sheffield.

[Some months ago we published in full Prof. Smith's article referred to below. Dr. Martin has made such a useful compila-

tion of the several matters of interest contained in the article, that we reproduce it for the benefit of our readers]:

The following table of drugs, and their method of exhibition, has been compiled from a recent article in the *New York Medical Journal* by Dr. A. A. Smith, Professor of Materia Medica in Bellevue Hospital Medical College. The subject is one of great interest to practical men. The compiler has frequently found marked benefit to follow a change of dosage, in the direction of smaller amounts and greater frequency of repetition.

DRUG..	DOSAGE.	DISEASE.
Chlorate of potash.	Gr. j. every half hour.	Scarlet fever, diphtheria, tonsillitis, etc.
Croton chloral.	Gr. ss. Ditto.	Neuralgia.
<i>Note.</i> —Solution of a grain to the drachm is almost tasteless.		
Salicylate of sodium.	Gr. ij. hourly or half-hourly.	Urticaria (acute).
<i>Note.</i> —Useless in chronic urticaria or that produced by balsam copaiba.		
Fowler's solution.	Gr. ss. half-hourly for 6 or 8 doses.	Vomiting after a debauch. Drunkard's morning vomiting. Vomiting of pregnancy.
Liquor potassii arsenitis.	Ditto.	Ditto.
Jaborandi (fl. ext.), with or without digitalis.	Min. v.-x. hourly or half-hourly.	Produces copious perspiration, without causing any unpleasant heart symptoms.
Sulphate of atropia.	A teaspoonful of a solution of one 1-100th of a grain in a tumbler of water hourly or half-hourly.	Supposed croup, which is usually false croup of a reflex origin.
<i>Note.</i> —If the child's face flushes, and physiological action of drug appears, frequency of dose to be diminished.		
Bromides.	Gr. j.-ij. every 10 or 15 minutes.	Nervous disturbances and transitory disorders of children.
Tr. Chamomille.	Min. j. every 15 or 20 minutes.	Insomnia of nervous, excitable sensitive children.
Vin. ipecac.	Gtt. j. every 15 or 20 minutes.	Vomiting or diarrhoea.
Calomel.	1-60th of a grain every hour for 10 or 12 hours.	Relieves the headache of syphilis occurring at night.
<i>Note.</i> —It is not to replace the iodides. This is Trousseau's method. The author found it successful by the second or third night.		
Calomel.	Drachm j., every 10 or 15 minutes, of a solution of gr. j. to the pint of water.	Vomiting or regurgitation of food in the case of nursing children.
Hyd. c. cretâ.	Gr. 1-24th every 15 or 20 minutes.	Vomiting and non-inflammatory diarrhoea of children.
Hyd. bichloridi.	Drachm j., every hour, of a solution of gr. j. to the quart of water.	Diarrhoea in children, with mucous passages and inflammatory symptoms.
Tartar emetic.	Drachm j., every half-hour, of a solution of gr. j. to the quart of water.	Whooping and cough of slight bronchitis in children.
Tr. nucis vomicæ.	Gtt. j. every 10 minutes.	Sick headache, not of a neurotic origin.
<i>Note.</i> —To be given immediately or soon after meals.		
Cantharides.	Min. j. every hour.	Vesical catarrh.
Tr. digitalis.	Gtt. j. hourly or half-hourly.	Organic heart disease where digitalis is indicated.
<i>Note.</i> —Gives greater relief without liability to ill effects.		
Castor oil.	Gtt. v. every hour in water, with sugar and gum.	Diarrhoea of children, with straining, slight inflammation and passage of jelly-looking matter, but not true dysentery.
Tr. of pulsatella.	Min. ij. every hour.	Orchitis, epididymitis and dysmenorrhœa, not of a membranous, obstructive or neurotic character.
<i>Note.</i> —Affords greater relief than any other method of treatment.		

DRUG.	DOSAGE.	DISEASE.
Calabar bean.	Gr. 1-50th every half-hour for 6 or 8 doses. Then stop for 3 hours, and again similarly repeat.	Flatulence, fluttering and palpitation of the menopause.
Ergot (fl. ext.).	Min. j every half-hour for 5 or 6 hours.	Amenorrhœa, not due to anemia. To be given the day before and again on the day on which it should occur.
Aconite (tr.).	Min. $\frac{1}{2}$ to $\frac{1}{2}$; very 15 minutes.	Febrile disturbance, cold in the head, cardiac hypertrophy with palpitation, severe headache, disturbance of nervous system due to increased force of heart-beat.
<i>Note.</i> —Effects must be watched. Dose regulated accordingly.		
Hamamelis (tr.).	Min. ij every half-hour.	Controls hemorrhages.
Belladonna (tr.).	Min. j every half-hour for 8 or 10 doses; then cease.	Nasal catarrh and bronchitis with free secretion. Pulmonary œdema, with failure of heart-power.
<i>Note.</i> —Retards exudation of serum; overcomes failures of heart power.		
Chloride of ammonium.	Gr. ij, combined with min. x-xv. of tr. cubeba every half-hour.	Acute pharyngitis, superficial inflammations of the other tissues of the throat.
<i>Note.</i> —If throat inflammations are due to the gouty diathesis, add to mixture min. x. of the ammoniated tincture of gualac, and give every hour.		
Citrate of caffeine.	Gr j every half-hour.	Headache of migraine.
Gelsemium (tr.).	Min. ij every half-hour.	Neuralgias about the head and face.
Guarana (fl. ext.).	Min. xv. every 15 minutes for 4 doses; then, if no relief, increase to min. xxx.	Headaches, especially those which are periodical and not of malarial origin.

—*Med. Press and Circular.*

TWO CASES OF POISONING WITH ILLUMINATING GAS SUCCESSFULLY TREATED BY THE INHALATION OF OXYGEN.* BY ALONZO CLARK, M.D., LL. D., Emeritus Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons.

So far as I know, these two cases of poisoning with illuminating gas are the only cases of this sort on record in which the treatment by the inhalation of oxygen has been resorted to. The histories of the cases, somewhat condensed from the written reports of the house physicians, are as follows:

CASE I.—A woman, forty years old, was brought to Bellevue Hospital and admitted into my service May 30, 1882. She and her daughter had gone to bed the night before, and about noon they were found in a state of unconsciousness, the room where they had been lying for fifteen hours being filled with illuminating gas, the odor of which they had noticed on going to bed. On recovering from her insensibility, the patient could remember nothing that had happened from the time of her going to bed until she regained consciousness in the hospital ward, after the lapse of 24 hours.

* Related at a meeting of the New York Medical and Surgical Society, February 24, 1883.

At the time of her admission, she was found to be suffering from pulmonary oedema; the radical pulse was scarcely perceptible, she was unconscious and cyanotic, her extremities were cold, there was trismus with rigidity of the flexor muscles, the urine was passed involuntarily, the pupils were slightly contracted, and a frothy mucus issued from the mouth. Her temperature was 96.5°F., and her respiration 40.

I entered the hospital shortly after she was brought in, and directed the inhalation of oxygen. Its administration was kept up for three hours. In addition, dry cups were applied over the chest, and tincture of digitalis was given endermically—in all, to the amount of thirty minims. Whisky also was given subcutaneously, and hot-water bottles were applied to the extremities. Occasionally, too, the patient was aroused by flagellation.

The treatment extended over a period of four hours, at the end of which time the woman began to show signs of returning consciousness; the pulse became more perceptible and regular, warmth returned to the extremities, and the temperature and the respiration were found to be normal. The next day the patient was able to tell her own story, and was soon afterwards discharged.

CASE II.—The daughter of the first patient, a girl twelve years old, was admitted at the same time, in Dr. Loomis' service. Her breath had a very strong odor of gas; she was completely comatose, the breathing being stertorous, the eyes closed, the conjunctivæ insensitive, and the pupils contracted and insensible to light; the pulse was 156, extremely feeble, and occasionally intermitting; the respirations were 30 and shallow. There were clonic spasms involving the left side of the body, with bird claw contraction of the fingers of both hands. The urine and fæces were passed involuntarily. The face and clothing showed evidence that the patient had vomited a good deal before reaching the hospital, but after her admission there was no vomiting.

Seeing that my patient was being treated by the inhalation, the house physician, Dr. Pryor, resorted to the same treatment in this case, and, in addition, gave a hypodermic injection of a sixtieth of a grain of sulphate of atropine. This patient also recovered.—*New York Medical Journal*.

DISEASES OF CHILDREN—PALATABLE DRUGS FOR CHILDREN.

FREDERICK CHURCHILL, M.D., F.R.C.S., Surgeon to, and Member of the Drug Committtee, Victoria Hospital for Children, contributes the following to the *British Medical Journal*:

We owe it, probably, much to the persistency with which practitioners of the sterner sort have impressed their rhubarb and black draughts upon rebellious, in defiance of the protestations of nurses and mothers, that "the tasteless globule" has found such favor with the weaker sex. I could tell of several cases where the children have been entrusted to the care of a homœopath, while the parents luxuriate under the usual heroic treatment of the orthodox practitioner. We must not forget to swim with the tide. Children of this enlightened age are far more pampered and spoilt than those of the previous generation. Mothers seem unable to control their feelings; or, it may be, that, with a smattering of physiclure, they find that there is no longer any necessity to cling to the once inevitable and nauseous potion. We must say a word, too, for the children. None of us like compulsion. It must not be forgotten that there is often more harm done to a child's nervous system, by cramming the draught down its throat, than all the good the nauseous drug was supposed to effect. Children will often take days to recover their equilibrium after a protrected encounter with the medicine-glass in the nursery, under the stern discipline of a would-be conscientious nurse. Judging from the varied susceptibilities and dispositions of the children under my care, some of them having very resolute wills, others possessing—I cannot say endowed with—mothers of a pronounced æsthetic temperament, to whom everything is a bore, except a novel to read, and a sofa to lie upon, it becomes most important to formulate a line of treatment that will satisfy such requirements.

This class of children are generally ruled by a domineering old woman they call "nurse," displaying a maximum of "tall talk," with a minimum of what she delights to call "common sense" (and very common, indeed, it proves to be). The medical man must cultivate a habit of attacking such a stronghold of

prejudice and conceit by a series of carefully planned flank movements, in such a way that the nursery magnate may be drawn, against her own convictions, into a pliable frame of mind, sufficient to enable the medical man's physic and regimen to stand a chance of being attended to.

To attempt to invade the sanctum of a nursery where the lady-paramount is cajoled into the idea that "nurse is a treasure," and prefers rather to foster the notion, than to care to have her eyes opened to the actual state of reigning ignorance, requires all the practical art of the medical man gradually to overcome and remedy.

Undoubtedly the ailments under which children for the most part suffer, belong to the preventable class. They are due sometimes to overfeeding; very often to neglect, especially of the calls of nature; and very much to general bad management. With this view, it may be well to presume that the best and most approved mode of treatment for habitual torpidity of the bowels is not medicine, but an enema of soap and water, with occasionally a little castor or olive oil added to the injection. If this do not succeed, and the child's appetite begins to fail, it is an indication for administering medicine by the mouth.

Fortunately, the art of the apothecary comes in to our aid, and we are now enabled to give the most nauseous of drugs—castor-oil—absolutely free from taste and smell, while it retains the full aperient properties of ordinary castor-oil. Messrs. Allen and Hanburys themselves advise that it should be shaken up with three or four times its bulk of hot milk. The viscosity of the oil is thus avoided, and the emulsion produced is scarcely distinguishable from warm rich milk.

If it be desirable to administer an aperient that will act more directly on the liver, and to avoid the unpleasant effects which often arise after taking "oil," the compound rhubarb pill will be found a servicable aperient. Of course, some new method for its administration will be desired, which I shall now detail. Either an ordinary five-grain pill may be cut up, and a portion of it broken in small pieces may be buried in a chocolate cream, which the youngest child will take with avidity; or for children of say five years and upward, I have given one-half and one-

fourth of a grain of this pill, thinly coated. Half a dozen or so may be taken, like "hundreds and thousands," and washed down with milk or water.

The medicated fruit lozenges are very useful, *e.g.*, tamar indien and laxora lozenges. Podophyllin is probably one of the active ingredients in these lozenges. Only a small portion of a lozenge must be given to a child. The objection found with these is that they sometimes "gripe" the little patient. Next to these, perhaps, in efficiency and palatability, is the compound licorice powder, containing senna powder. About a teaspoonful stirred up with warm milk may be taken at bedtime, and a little chloric ether added (about ten to twenty drops). Very few children will object to take fluid magnesia or the calcined magnesia, especially if flavored with the flavor of mulberry or orange.

I have succeeded in making the taste of many powders by the addition of powdered "rose" lozenges. I very seldom prescribe Gregory's powder on account of its nauseous character and bulk. I prefer to combine the rhubarb with bicarbonate of soda about five grains of each. This makes a much more miscible and manageable powder. Given in jam, honey or golden syrup, the taste is altogether covered.

Children will sometimes take the "baum de vie," or decoction of aloes, without objecting much. A little of this rubbed into the stomach of infants will suffice sometimes to procure an action of the bowels. The extract of liquorice may be added to the decoction until the bitter taste is sufficiently masked. Children have not really such an aversion to it, for I have known them to lick off the aloes from their fingers when put on to prevent them from sucking them. Powdered aloes, about half a teaspoonful, may be given mixed with brown sugar. The electuary of senna is taken without difficulty by some children, also the syrup of senna and the infusion with prunes. The effervescent purgative lemonade is a very agreeable drink, as also half a seidlitz-powder flavored with lemon-juice.

Turning now to febrifuge mixtures, there is not much need of flavoring to mask the flavor of these. Sweet niter, acetate of ammonia, spirits of chloroform, are all pleasant drugs to take. The nitrate and chlorate of potash are rather saltish, but the sal

prunelle and Wyeth's compressed tablets will be taken by the bigger children without much protest. The syrups of orange, lemon and mulberry will come in as agreeable and cooling adjuncts. Cough-mixtures can generally be made very pleasant by the addition of syrup of squills, of tolu, etc.

As regards tonics, some considerable skill will be necessary efficiently to cover the bitter flavor. Children will take the saccharated carbonate of iron very well, and also steel wine; but if we attempt to give the bitter infusions, there is sure to be rebellion in the nursery. Quinine—one of the most valuable medicines for children—can be given without difficulty, either in the form of pill, or, which I prefer, dissolved in syrup of orange, without the addition of any water. This effectually covers the flavor. Quinine wine is useful for the elder children.

Chemical food is, of course, taken with relish, and if recently made is a serviceable tonic; but the phosphates, from their insolubility, throw down very much. The compound solution of the hypophosphites, in ten-minim doses, and the hypophosphite wine, forms a perfect substitute for Parrish's food. Besides having iron in a form which is easily absorbed, the hypophosphite of magnesia serves as a useful antacid and stomachic in this combination.

With a view of putting into practical form these two suggestions, and to systematize the irregular but constant attempts of mothers to keep a little dispensary of their own, I have instructed Messrs Savoy and Moore to fit up a nursery medicine-chest, with a companion guide, to assist mothers, especially those residing in the colonies and far away from medical aid, to treat their own children in such emergencies.

Dr. Frank O. Stockton has been elected to the professorship of Diseases of the Nose and Throat in the College of Physicians and Surgeons of Chicago.

Obituary.

Dr. Frank L. Rea died August 10, 1883, of facial carbuncle, aged 24 years. The disease appeared July 31 as an inflamed hair follicle, causing sensitiveness. The hair was extracted by a friend, and found to be bulbless. It seemed to make an instantaneous and fatal impression on him, and he made an ominous record of the fact in his diary. He wrote :

July 30. A little boil is progressing rapidly on my upper lip to-day.

July 31. Have a boil or carbuncle on my upper lip. *Wonder if it will turn out as Egle's did last summer—i. e., kill me.* Professor prescribes 10 drops Fowler's solution 4 times a day. The carbuncle started yesterday morning as a little sore pimple, and I had Jacobson look at it, and from its apex drew a loose hair, from which the bulb was absent. I then had him paint it with carbolic acid. To-day it has progressed—not being very painful. P. M.—More painful; painted it with atropine, relieving the pain also. Made an incision into it and introducing carbolic acid. It has swollen half way up to my eyelid, and is bearing in that direction. Pulse 96, temperature 99.2 at 9 P. M. I am fully aware of its dangers—Holmes' Surgery, page 890; Bryant, 140. *No post mortem, please.* The surface looks red and angry. Beverly Egle's case ran along as mine for a number of days, probably ten, after it commenced dying of suppurative phlebitis, extending up to the orbit and along the ophthalmic vein into the cavernous sinus. The island of Reil was a mass of pus, and infarctions were found in the lungs.

August 1. Lip and face markedly more swollen this morning.

but not painful. The redness is confined mostly to the surface of the boil. Was out on business this forenoon, and this afternoon attended Professor's clinic at the College, and went over to County Hospital to witness an ovariectomy by Prof. Fenger, but did not feel well enough to stay.

Temperature 92.2 at noon, and 9 P. M., 99.6; pulse 108. Began tincture opii. 15 drops with each dose of Fowler, and oftener if pain requires it.

August 2. Taking on a distinctly carbuncular character. Brawny swelling with tubercular elevations. Pulse 96, temperature 100.

At 2 P. M. took ether, and Professor made an incision across through the indurated tissues about two inches long, and then cauterized thoroughly with caustic potass. the involved tissues. No pus found except size of a pea at the seat of original pimple.

Linseed poultice applied, and took $\frac{1}{4}$ gr. morphine. Not much pain this afternoon. Ether produced severe vesical irritation. Took three compound cathartic pills at bed time.

August 3. Lip and face very painful this morning. Pills operated well. Pulse 96, temperature 99.6. It has crossed the median line to the other half of lip. Professor injected 15 m. of 1-40 carbolic acid, and painted the surface with pure liquid carbolic acid. P. M.—Pulse 108, temperature 101 $\frac{1}{4}$. No chill but chilly sensations. Began bromides; stopped poultice and use carbolic acid lotion.

This ended his personal record of his case, and is taken verbatim from his diary.

August 4. Symptom growing worse, fever high; shiny hot face very much swollen. Pulse 120, temperature 102. Opened left side of lip and cauterized it as the other.

August 5. Face excessively painful; swelling increases; oedematous condition of sides of face from obstruction of veins. Pain across chest, which settled into a severe pleuritic pain in right side. No cough or expectoration. This pain disappeared in a day or two under warm applications. Pulse 120 to 130, temperature 103 $\frac{1}{4}$.

Sulph. quin 20 grains every 12 hours; mu. tincture ferri 40 drops every 4 hours; omit Fowler's solution.

August 6. Met with Dr. John E. Owens in consultation. A red band extended up left side of face an inch wide, reaching from lip to orbit. Etema still continues increasing—120, 104½. Delusions begin to manifest themselves. No change of treatment. Opened further, and cauterized the left wound.

August 7. Mind markedly disturbed. No other marked change. Temperature, A. M., 103½; P. M., 103½. Pulse, 120 A. M.; 108-120 P. M. Iodoform applied to wounds.

August 8. Delirium increasing,—describes what he sees as an infinite number of suicides on the walls and ceilings of his room. Then a change in which the whole scene is a broad, quiet ocean. Can only be arrested in his wanderings for a few minutes a time; pulse and temperature rising; lip swollen intensely; openings appear on the mucus surface of the lip; complains of pain across the forehead, and has for some days. Pleuritic pain ceased.

August 9. Very delirious all night; symptoms all worse; had to be restrained till near morning, at which time he became unconscious; so remained till he died—10th at 11 A. M.

There is probably little reason to doubt the pathology, as the disease is described and here confirmed as suppurative phlebetis, and the anatomical connection between the lip and brain promise the best explanation of its exceptionally fatal tendency. There was a strumous tendency in the case, but whether it modified it is uncertain. But little need be added. The marked peculiarities were its uninterrupted progress, and his unmoved opinion of its necessary fatality. I do not think he ever wavered for a moment on this, and tho', when I reasoned with him and endeavored to divert his mind and show him the direct tendency of this central fact in attracting the disease and producing the very thing we were trying to avert, he would seem to assent to me, and he would announce the fatal prospect to the next person to whom he talked.

He predicted the progress of the disease, the occurrence and time of his delirium, and arranged his affairs with a quiet confidence born of conviction, and no amount of ridicule or reason affected him in the least; and this was not the result of superstition, but of knowledge and experience and a distrust of his recuperative power, alarmed as he always was at disease in himself.

In a similar case I should feel at a loss for any suitable treatment, but if the nature of the disease is properly diagnosed I should be tempted to destroy the facial and cerebral venous connection early by a transverse incision extending from the side of the nose across beneath the orbits, cauterizing it with actual cautery, caustic, potash or strong acid, following this with the applications to the region so treated with proper constitutional treatment.

Dr. Rea was a young man of unusual promise, a careful, diligent student, kind disposition, winning manners, and bade fair to attain an enviable position in his profession. He graduated at the Chicago Medical College in 1882, and was appointed interne to St. Luke's, completing his term of service April last. His loss will be deeply felt in the positions he held, the College of Physicians and Surgeons, as well as by his numerous friends and acquaintances, but more than all by his heartbroken parents whose bright hopes and fond anticipations for him were doomed to such sudden blight.

R. L. R.

BOOKS RECEIVED.

Lindsay & Blakeston's Visiting List for 1884. Twenty-five patients, price \$1; fifty patients, price \$1.25.

Physicians' Memorandum Book and Weekly Visiting List. Thirty-one to sixty-two patients, \$1.25.

A Manual of Psychological Medicine and Allied Nervous Diseases. Octavo, 699 pp. Price \$5. P. Blakiston, Son & Co.

The Physiological Factor in Diagnosis. I. Milner Fothergill. Wm. E. Wood & Co., through W. T. Keener, 96 Washington St., Chicago.

ANY person having purchased a copy of the United States Pharmacopœia of 1880, and desiring a list of the corrections since made therein, can procure same by sending a two-cent stamp to

Wm. Wood & Co., Publishers,
56 and 58 Lafayette Place, New York.

Items.

"THE LIVING DEATH."—[*The Southern Clinic*, C. A. Bryce, Editor, M.D., Richmond, Va., Oct., 1883. Editorial.]

We received a pamphlet published by Dr. H. H. Kane, of 46 West Fourteenth Street, New York city, and issued to the people of this broad land, far and wide, under the above caption.

On account of the betrayal of professional confidence reposed in him, and on account of the open violation of the Code of Ethics by this Dr. Kane, it becomes our duty to denounce this man as unworthy of recognition by the profession. A brief *résumé* of the contents of *The Living Death* will serve to establish the grounds of our denunciation.

In the "introduction," Dr. Kane announces his great experience in the treatment of opium, chloral, morphia, hashisch, and alcohol habitués, and claims to have at last *discovered* a combination by which any one may be speedily, painlessly, and secretly cured at his or her home by using his preparations; the formula and ingredients are, however, kept secret. He also claims to be so very careful of the communications of all applying to him for medicine, that he has adopted the plan of destroying all letters sent to him. He, after mature deliberation and upon the urgent solicitation of members of the profession all over the country, has consented to issue this circular broadcast to the people to let them know where this inestimable boon may be procured, and finally in order to convince those who are unacquainted with his name and high professional attainments, as to the responsibility of his statements, he has introduced letters and testimonials from the most eminent men of America and England.

This "little brochure" is indeed "the crowning effort" of an unprofessional career. Dr. Kane has already, just within the pale of the code, advertised himself by his publications, and in the last year he has utilized the daily papers of New York and the illustrated periodicals to extend his fame as a specialist. To-day he goes beyond all previous efforts by announcing himself the sole proprietor of a secret remedy; this is bad enough, but he is also bold enough to use in support of his treatment professional endorsements, selected from private correspondence in the past, when this Dr. Kane was a legitimate physician practicing a specialty. As we read these commendatory letters we are surprised at the insolence of the man who dares use his eminent correspondents to advance his advertising scheme, and we find nowhere in these letters any approval of his secret treatment, or any recognition of his ownership of a specific.

From the "drugs that enslave" to *The Living Death* is a long step, the step from scientific labor to charlatanism, and Dr. Kane cannot honestly use letters written to the author of his books to advertise the proprietor of a secret remedy for the habits which he terms a Living Death.

He has voluntarily placed himself among the "cancer doctors," patent medicine men, and quacksalvers generally who flood the country with just such literature as this *Living Death*, and in advertising his nostrum he avows himself no longer worthy professional countenance or support, no longer a scientific physician.

Every paragraph of this remarkable production seems to have been modeled after the blood-curdling style of the "Private Diseases Cured" quack, who first scares his patient into the disease he professes to cure and then makes a fee out of him. To this ignoble company, as to the communion of choice spirits, we commend Dr. H. H. Kane.

We will briefly allude to a particular unethical proceeding in this advertising pamphlet, we mean the attack on Dr. J. B. Mattison, of Brooklyn, and the use of a private letter from Dr. Mattison to contrast the comparative ability of Mattison and Kane. In this, Kane's charlatanism contrasts most unfavorably with the candor of a gentleman who does not own a secret nostrum, but

who has a wide reputation for intelligence, ability and as an honorable and ethical practitioner.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE. JULY 1, 1883 TO SEPTEMBER 30, 1883.

Baillhache, P. H., Surgeon : detailed as member of Board to examine candidates for promotion, Aug. 23, 1883 ; detailed as Surgeon-in-charge Cape Charles Quarantine Station, Sept. 5, 1883.

Müller, T. W., Surgeon : granted leave of absence for twenty-five days, August 31, 1883.

Wyman, Walter, Surgeon : detailed as member of Board to examine candidates for promotion, August 23, 1883.

Long, W. H., Surgeon : granted leave of absence for twenty days, Sept. 25, 1883.

Smith, Henry, Surgeon : directed to take charge of quarantine service at the Capes, July 29, 1883.

Stoner, G. W., Passed Assistant Surgeon : granted leave of absence for thirty days, Aug. 24, 1883 ; to inspect the relief stations along the coast of Maine, Sept. 29, 1883.

Goldsborough, C. B., Passed Assistant Surgeon : granted leave of absence for thirty days, Aug. 29, 1883.

Banks, C. E., Assistant Surgeon : relieved from duty at Portland, Oregon, and to report to the Surgeon-General at Washington, July 10, 1883.

Carmichael, D. A., Assistant Surgeon : granted leave of absence for ten days, Aug. 31, 1883.

Peckham, C. T., Assistant Surgeon : to proceed to Portland, Maine, for temporary duty, Aug. 25, 1883.

Devan, S. C., Assistant Surgeon : to proceed to Portland, Oregon and assume charge of the Service, Sept. 11, 1883.

Kallock, P. C., Assistant Surgeon : to proceed to Philadelphia, Pa., for temporary duty, July 25, 1883 ; to rejoin his station (New York) July 31, 1883.

Yemans, H. W., Assistant Surgeon : relieved from duty at Sitka,

Alaska, and to proceed to Portland, Oregon, for temporary duty, July 10, 1883; to proceed to San Francisco, Cal., reporting for duty to Surgeon Vansant, Sept. 11, 1883.

Glennan, A. H., Assistant Surgeon: to remain at Norfolk, Va., until further orders, July 29, 1883.

Wasdin, Eugene, Assistant Surgeon: to proceed to New Orleans, La., for temporary duty, Aug. 2, 1883; to proceed to Mobile, Ala., for temporary duty, Aug. 27, 1883; to rejoin his station (New Orleans) as soon as practicable, September 25, 1883.

PROMOTIONS.

Guitèras, John, Passed Assistant Surgeon: promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury from September 1, 1883. August 31, 1883.

Wheeler, W. A., Passed Assistant Surgeon: promoted and appointed Past Assistant Surgeon by the Secretary of the Treasury from September 1, 1883. August 31, 1883.

RESIGNATION.

O'Connor, F. J., Assistant Surgeon: resignation accepted by the Secretary of the Treasury, to take effect August 1, 1883. August 2, 1883.

APPOINTMENT.

Wasdin, Eugene, M.D., of South Carolina, having passed the examination required by the regulations, was appointed an assistant Surgeon by the Secretary of the Treasury, August 2, 1883.

A DOCTOR'S SANCTUM.

In an article entitled "Rab's Friend," published in the *Century Magazine*, the following description is given of the study of the late Dr. John Brown, of Edinburgh, the well-known author of "Rab and His Friends: "

"The room is crowded with pictures, engravings, books and pretty things of all kinds—nothing, perhaps, very valuable—but nearly all of them with a history; nearly all given to him in one way or another by some one who admired or loved him. The

frame in the middle line on the extreme right of the fireside contains five of Leech's little original drawings; and there is a famous larger one on the same line beyond the head of Tennyson, while beneath is the grand Goldsmith "in his new suit," from Thackeray's "Humorists." The black picture diagonally to the right above him contains the original sketch, by George Harvey, of the girl's head (including his daughter and Dr. Brown's,) made for his picture of "Leaving the Manse," and afterward utilized as "Rab's Friends" in the illustrated edition. Above the bust to the left is the best of the heads of "Rab" by the very clever young animal painter, Edwin Douglass. The white frame to the left of the gas globe shows, by a slight penciled profile likeness, the beautiful head of Mrs. Brown in her prime; that, partially concealed by the other gas globe, is her likeness as a young girl, and immediately below it is her bust; the other bust on the mantelpiece being that of Dr. John Scott, the Edinburgh physician, while the portrait behind is that of John Scott, of the *London Magazine*, who was an uncle or cousin of Mrs. Brown. The engraving in the middle line, immediately to the left of the mantelpiece, is Turner's "Devil's Bridge," over the Reuss, in the Auldorf valley, and the bull-dog's head to the left of it (a fine engraving) bears the inscription, "Not an approach to the great Rab, but—yours, truly, E. Landseer." The picture to the left of young John's bust are, first, a very beautiful and characteristic landscape of Harvey's, much akin in character to that engraved in the illustrated Rab for "Rab's Grave;" and, next, a small but very good likeness of old Dr. Brown, Dr. Brown's father. There is also a wonderfully clever spaniel dog drawn by Turner, and a drawing by Ruskin, both being, I think, presented by Ruskin. Of the books on the table may be noticed two volumes of O. W. Holmes' poetical works, the gift of the "Autocrat," with a letter which gave Dr. Brown as much pleasure as anything which had come to him for years."

THE CHICAGO THROAT AND CHEST HOSPITAL.

A meeting was held recently at the residence of the Rev. William Lawrence for the purpose of organizing in Chicago a

